

THE MILLING WORLD

AND

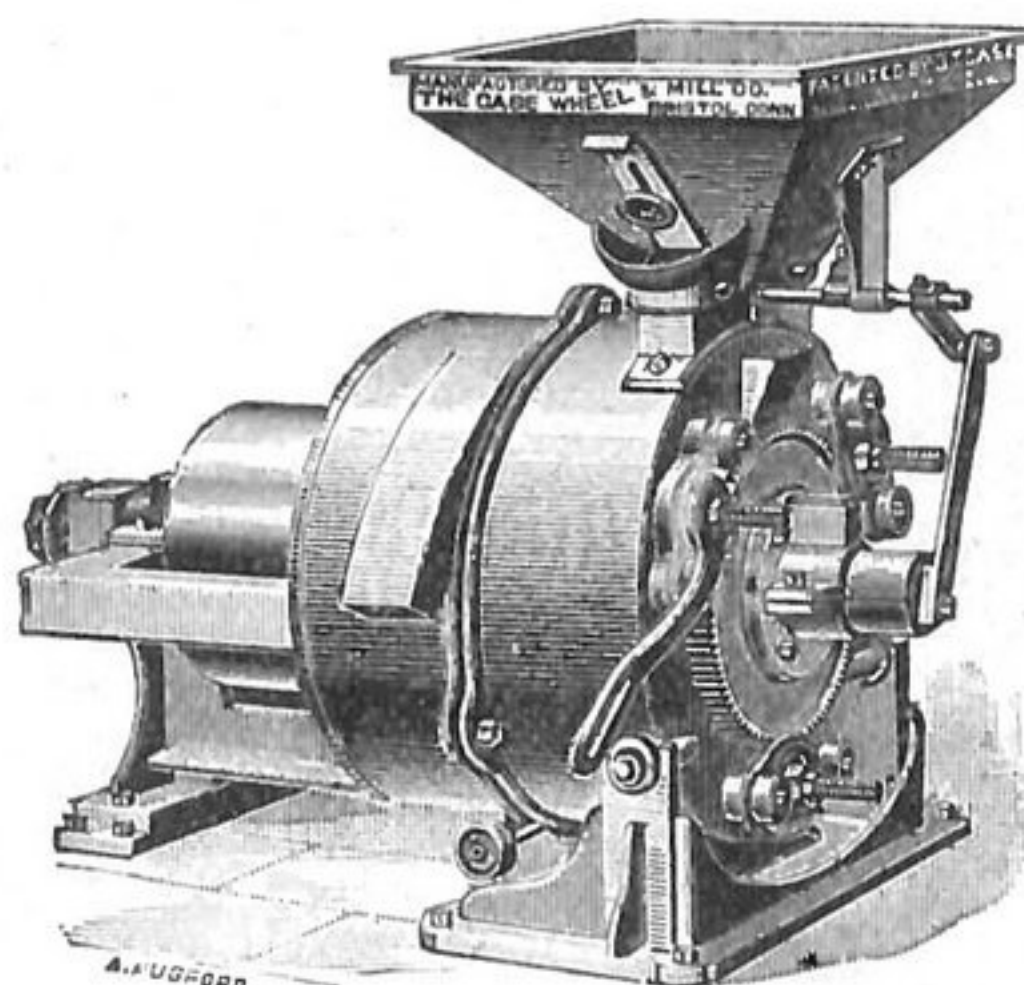
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XIX. No 26.

BUFFALO, N. Y., FEBRUARY 25, 1889.

\$1.50 PER YEAR.



VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS. (J. T. CASE'S PATENT.)

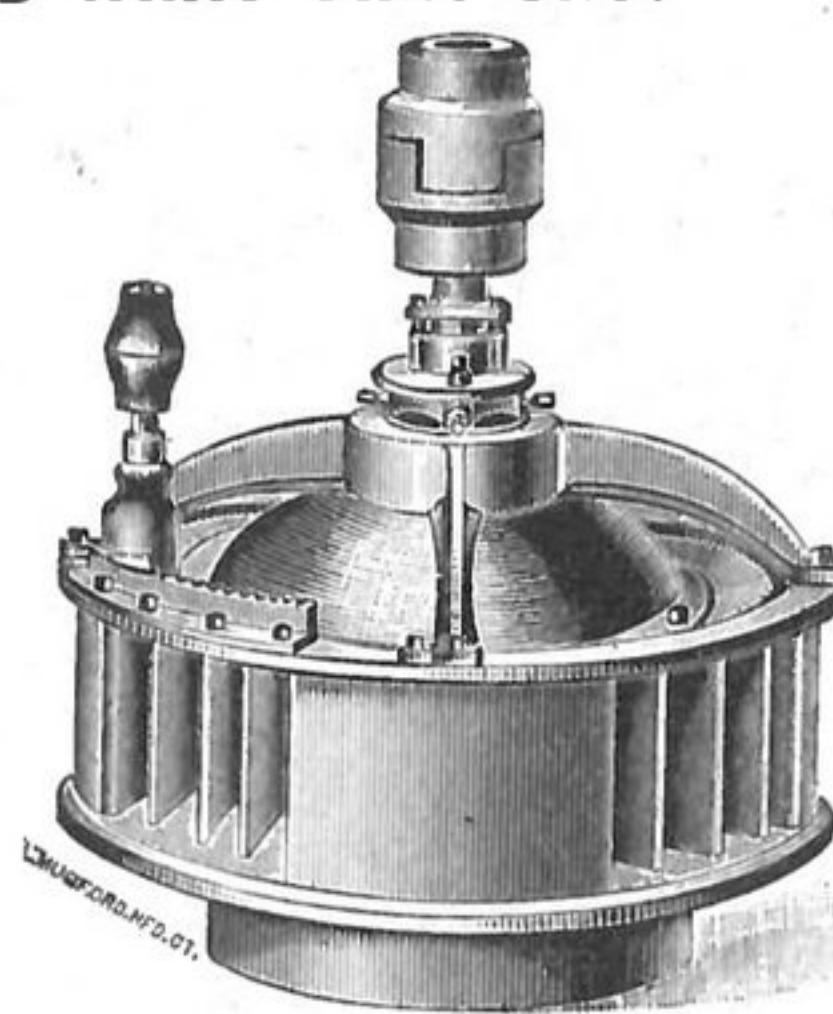
FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & Co., Meriden, Conn.
 "Superior to any mill in use."—Geo. WESTON, Bristol, Conn.
 "The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.
 "We take pleasure in recommending it."—GARLAND LINCOLN & Co., Worcester, Mass.

SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.

The Improved National Turbine Water Wheel

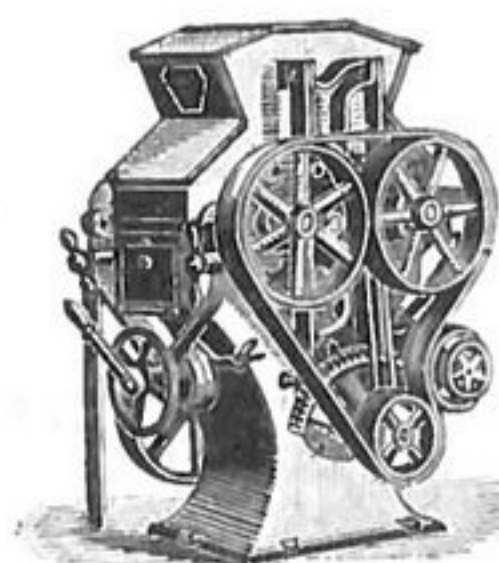
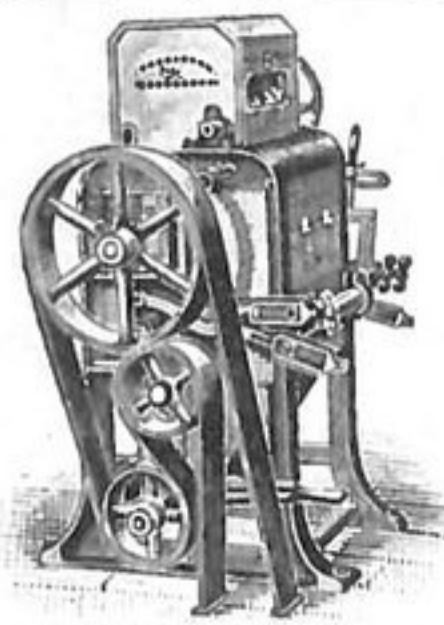
The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.



The Case Wheel & Mill Co., Bristol, Conn.

NOTICE.

The J. B. ALLFREE CO., INDIANAPOLIS, IND., wish to inform their milling friends and the trade in general that they are prepared to build and equip throughout mills of any capacity in a style that can not be excelled. Bolting Cloth Trade a Specialty.



COMPLETE OUTFITS

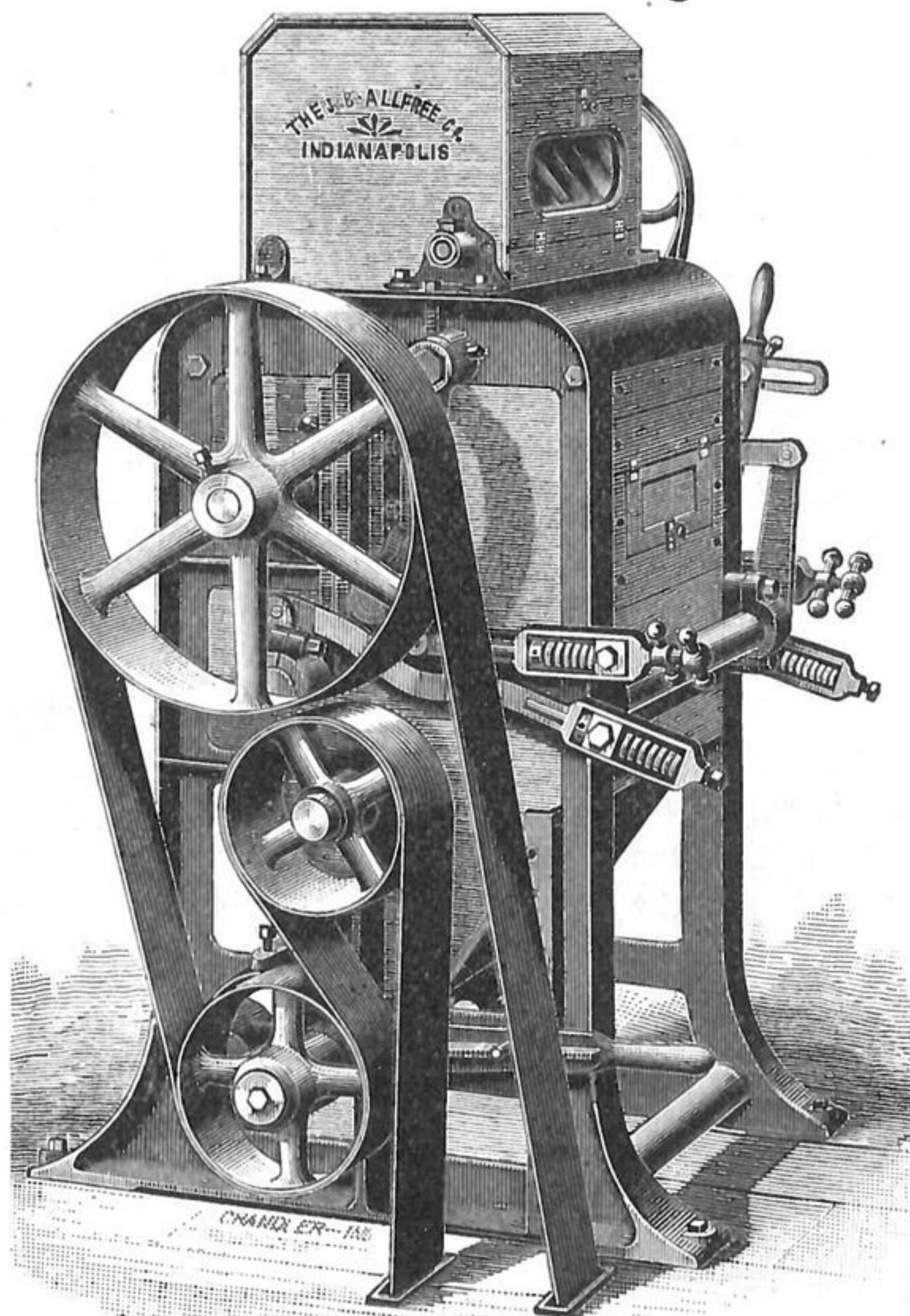
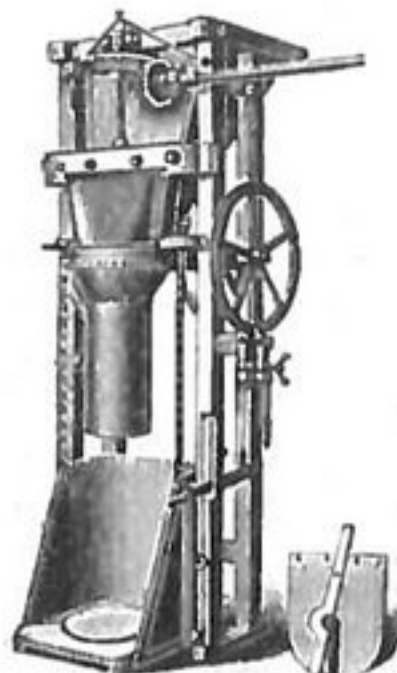
—FOR—

CORN-MEAL

—FURNISHED AT—

LOW PRICES.

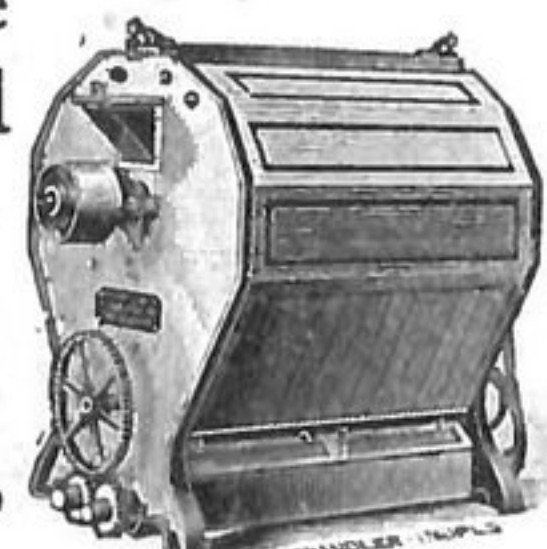
Millers interested in Hominy and Germless Goods will do well to get prices from us on the Keystone Huller and Pearler.



—WE MANUFACTURE—

AUTOMATIC ENGINES.

The Keystone Four Roller Wheat Mill.
 The Keystone Four High Roller Mill.
 The Success Bolter and Dresser.
 The J. B. Allfree Purifier.
 The J. B. Allfree Sieve Scalper.
 The J. B. Allfree Co.'s New Bolting Chest.
 The J. B. Allfree Centrifugal Reel.
 The Climax Bran Duster.
 The Allfree Flour Packer.
 The Keystone Huller and Pearler.



ADDRESS FOR ILLUSTRATED DESCRIPTIVE CATALOGUE,

The J. B. Allfree Co., Indianapolis, Ind.

RIGHT TO THE POINT

"The best laid plans o' mice and men
Gang aft aglea."
But the Case Mill gets there every time,
So all the millers say.



"WE PUT IN A CASE SHORT SYSTEM MILL."

Old father Wise, with twinkling eyes,
Points backward to the well-filled till,
While Thrifty scans the new made plans
To double up the CASE SHORT MILL.



"WE DIDN'T!"

Old Shiftless weeps—the sick cat sleeps,
Doolittle has gone out to pray,
The spiders fill the empty till,
While hungry rats now hold full sway.

JUST TAKE A LOOK AT WHAT THIS MAN WRITES:

THE CASE MFG. CO., COLUMBUS, OHIO.

Gentlemen: Enclosed please find settlement in full of my account. The 4-break mill works splendid and am well pleased with it. The Inter-Elevator Flour Dressers are everything you represent, both in capacity and excellence of work. The Special Purifiers are a fine machine and far ahead of the Purifiers you put in my other mill in '83. Am especially pleased with the millwright work. It is well planned and finished in a good, workmanlike manner. I can not praise your millwright and his work too highly.

Yours resp'y,

ELYRIA, OHIO, OCT. 10, 1888.

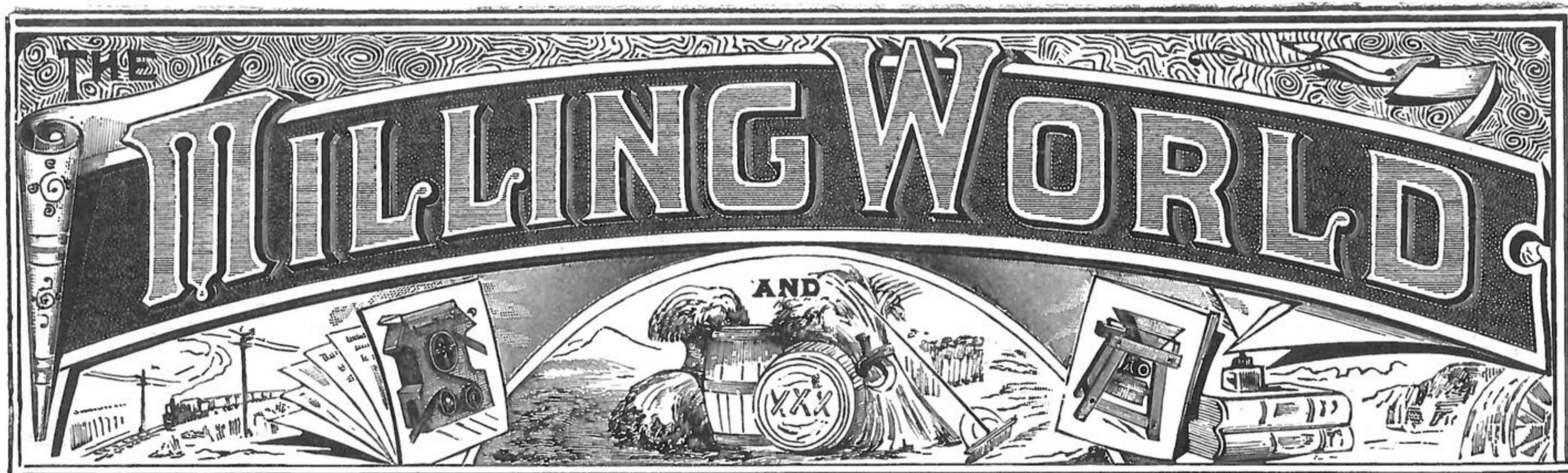
GARRET REUBLIN.

If you want a successful mill write us. Long System Mills remodeled on short notice. Case Short Break Corrugations put on any make of rolls. Our Roller Corn Mills are a most profitable investment. Now is the time to put one in your mill. Our Aspirator and Purifier for Corn Meal will astonish you. Belting, Gearing, Elevator Supplies, Silk and Wire Cloths shipped promptly on receipt of order. If you want mill supplies of any kind write us. Estimates on mills of any desired capacity furnished on short notice. Write us at once and state the capacity wanted and number of grades of flour you wish to make. The Automatic Feed on our machines makes them superior to all others. Catalogues and Circulars Mailed on Application.

RE-DRESSING ANY MAKE OF ROLLS PROMPTLY A SPECIALTY.

THE CASE MANUFG. CO., COLUMBUS, OHIO.

PLEASE MENTION "THE MILLING WORLD."



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PUBLISHED EVERY MONDAY MORNING.

VOL. XIX. No. 26.

BUFFALO, N. Y., FEBRUARY 25, 1889.

\$1.50 PER YEAR.

BREADSTUFF exports from the United States in January of this year amounted to \$10,833,208, against \$8,343,298 in January of last year. During the seven months ending January 31, 1889, the breadstuff exports amounted to \$73,814,700, against \$82,501,584 in the corresponding period of the preceding year.

AMONG the new advertisements in this number of THE MILLING WORLD is that of the well-known Dawson Roll Works, of Harrisburg, Pa., which our readers will notice in another place. A description and illustration of the famous Dawson Roller Mill also appear in this number. Every miller will find it profitable to correspond and deal with this firm.

EDITOR RANCK, of our esteemed Indianapolis cotemporary, "The Millstone," has the thanks of THE MILLING WORLD for advance proof-sheets of his full stenographic report of the important and profitable convention of winter-wheat millers at Indianapolis. The report is a creditable one in every way, and Editor Ranck has shown how a convention of millers may be managed for the good of the millers and not for the good of certain bumptious journalists who pretend to be absolutely indispensable to the millers of the United States.

ACCORDING to the reports from the spring-wheat section of the United States there is a decided scarcity of spring grain now on hand, and the prospect is that many of the spring mills will be forced to lie idle one or more months for lack of wheat to grind. If the reports are reliable, not another bushel of spring grain of the crop of 1888 should be available for export. But, so often has the event falsified the prediction in grain matters, the public will not be surprised to see the spring mills go steadily on grinding 1888 grain until 1889 grain is at hand.

THE convention of winter-wheat millers at Indianapolis appears to have been a meeting of business men fully alive to the situation and the needs of their important industry, and fully inspired by the desire to find the best means to improve that situation and to answer those needs. The addresses were to the point, the recommendations were judicious, the presentations of various subjects were made in a business-like manner, and the convention was harmonious on all essential points. We shall expect to see great good growing out of this convention.

CHICAGO enthusiasts gleefully report that "Old Hutch is short, very short on May wheat!" That is all right, but those enthusiasts should not forget that things are not always what they seem. Old Hutch has a partner, and that partner is long, very long, where Old Hutch is short. Our Chicago cotemporaries should not worry over Old Hutch. He will carry a torch when the procession moves in May. If he attends the obsequies, he will not do the cadaver act nor even sit among the wailers with heart bowed down with weight of woe. O no! Not much! Old Hutch is no such!

AGRICULTURE is the first interest in the United States to receive special governmental care. The Department of Agriculture has been created to succeed the Agricultural Bureau, and the farmers of the United States are now represented in the Cabinet of the President. While there may not be much to say in favor of this exaltation, there certainly is quite as little to say against it, excepting that, if one special interest is entitled to such recognition, all other special interests are equitably entitled to similar recognition. It may be all right to have a Secretary of Agriculture, and it would be just as right to have a Secretary of Wood-chopping, a Secretary of Typesetting and a Secretary of Laundrying. Perhaps these and others will come in the near future. Our institutions are elastic and our industries are aggressive, and as a people we are almost beyond the sensation of surprise at any thing we do.

REPORTS on the condition of the winter-wheat crop are conflicting. One report of recent date stated that in central Illinois the peculiar winter has killed all the wheat that had not been killed by the chinch bugs. Another report of about the same date did not mention the alleged damage in that section. The weather in the winter-wheat belt has been rather dry, and copious rains will be needed in the spring to give an average of moisture necessary for good crops. Generally the farmers have sold their surplus wheat, and the reports from various quarters indicate a short supply for the balance of the season. It is now the season to plant the roorbacks and canards for the winter-wheat crop, and, as the liars have not died since last winter, it is reasonable to expect the usual misrepresentations and sensationalism. The elements, the chinch bugs and the Hessian flies will all be overworked from this date on to June and July next.

FREQUENTLY we hear the question: "Why do British millers need American flour?" The well-known British economic writer, H. Kains-Jackson, in a recent communication to "Dornbusch" tells why the British millers import American flour. He states that the British flour-makers utilize the strong American flour by mixing it with the product obtained by grinding home wheat and that sent from Russia and India. He even intimates they are seriously embarrassed by the present paucity of flour shipments from this side of the Atlantic, as they have to adopt new expedients for making an article that can be sold cheaply. He says "the British millers have lost their sheet anchor in the failure of American flour supplies." According to this high British authority, the strong American flour not only sells itself, but it also pushes or carries into market the inferior Russian and Asiatic flour. Evidently the day when Great Britain shall be either able or willing to dispense with American wheat or flour is still far away in the dim future. After filling their bins with cheap and nasty Russian and Asiatic wheat, they still need fine American wheat to grind with it or fine American flour to mix with the flour made from it. That is why we smile when we read of "the utter and hopeless extinction of the grain and flour trade between the United States and Great Britain."

The Canton Cabinet Filing Case Company, Canton, Ohio,

MANUFACTURERS OF

The New Buckeye Document Case & Letter File; Also All Kinds Office Furniture



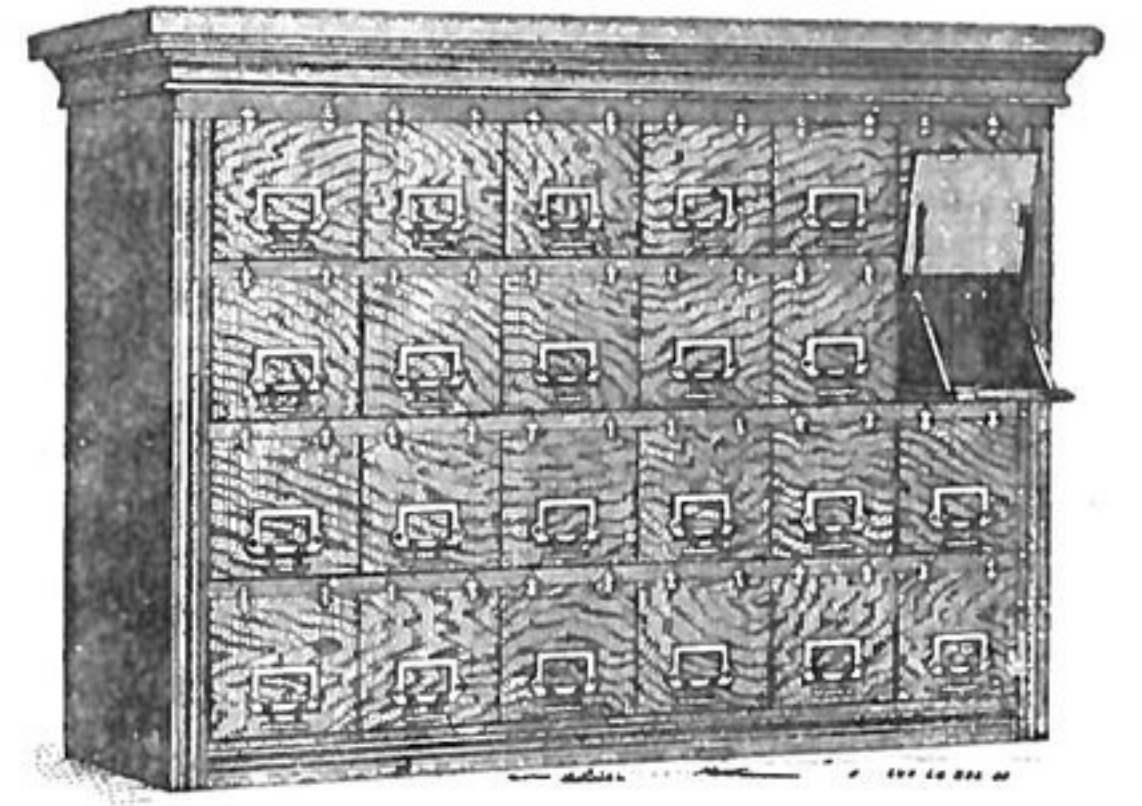
NO. 8.

NO. 8 Represents one side of one of our Revolving Cabinet Letter Files and Document Cases Combined. It contains 30 Document Drawers and 8 Letter File Drawers. In filing letters we use first VOWEL of name on front of drawer, and LETTER FOLLOWING first VOWEL on Index Sheet within drawer. We also make more exhaustive systems which contain from 6 to 100 or more Filing Drawers.

NO. 1 Represents one of our small Document Cabinets, for use on desks or brackets. Action of drawer can be seen in the cut. When front is raised inner drawer comes forward, exposing contents of drawer for inspection.

Our Cabinet Files are Conceded to be the Most Convenient of Any in the Market. They are Compact, Simple, Complete, Durable and Ornamental.

SEND FOR PRICE LIST AND CATALOGUE.



NO. 1.

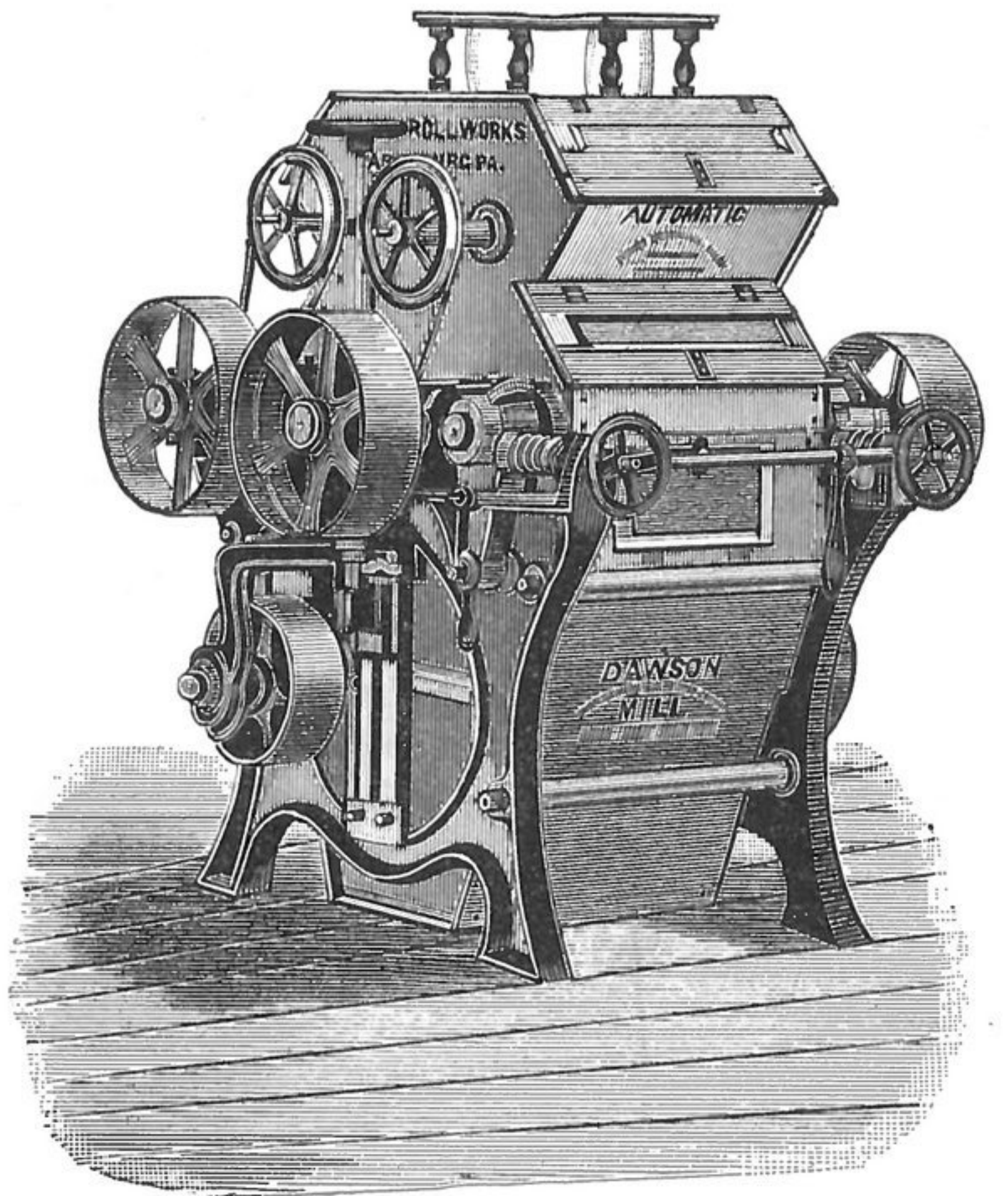
Dawson's Roller Mill

Is acknowledged to be the very best in the market. It has our Patent Automatic Centrifugal feeder, never failing to feed the stock the full length of rolls in an even sheet. It is the Latest and Best feed out, uses less power and is simple in construction. It can be placed on any style of machine with little expense. We use for roll bearings phosphor-bronze metal which will admit rolls being run at any speed without heating and with little friction, and uses little oil. We use the Dawson Corrugation, which is admitted the best in long or short system mills as the action is granulating rather than CUTTING.

We have a large plant to Re-grind and Re-Corrugate Rolls.

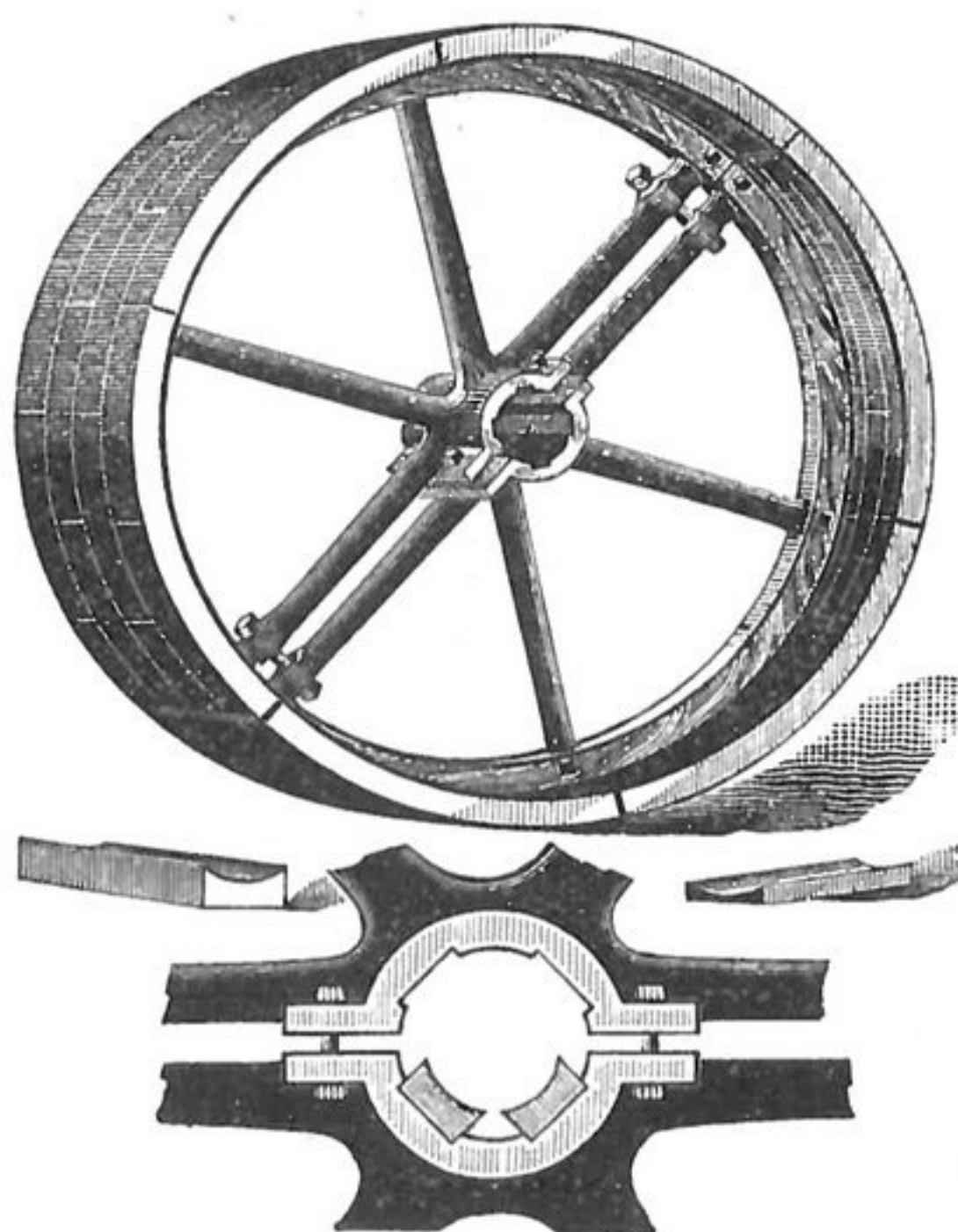
Owing to our late increased facilities and central location we are enabled to ship goods promptly on the shortest notice.

PARTIES CONTEMPLATING REMODELING THEIR MILLS OR BUYING ANY ROLLER MACHINES ARE REQUESTED TO PUT THEMSELVES IN CORRESPONDENCE WITH US.



FOR PRICE LISTS AND CIRCULARS, ADDRESS,

Dawson Roll Works, Harrisburg, Pa.



C. H. BIRD & CO., KALAMAZOO, MICH.

MANUFACTURERS OF PATENT

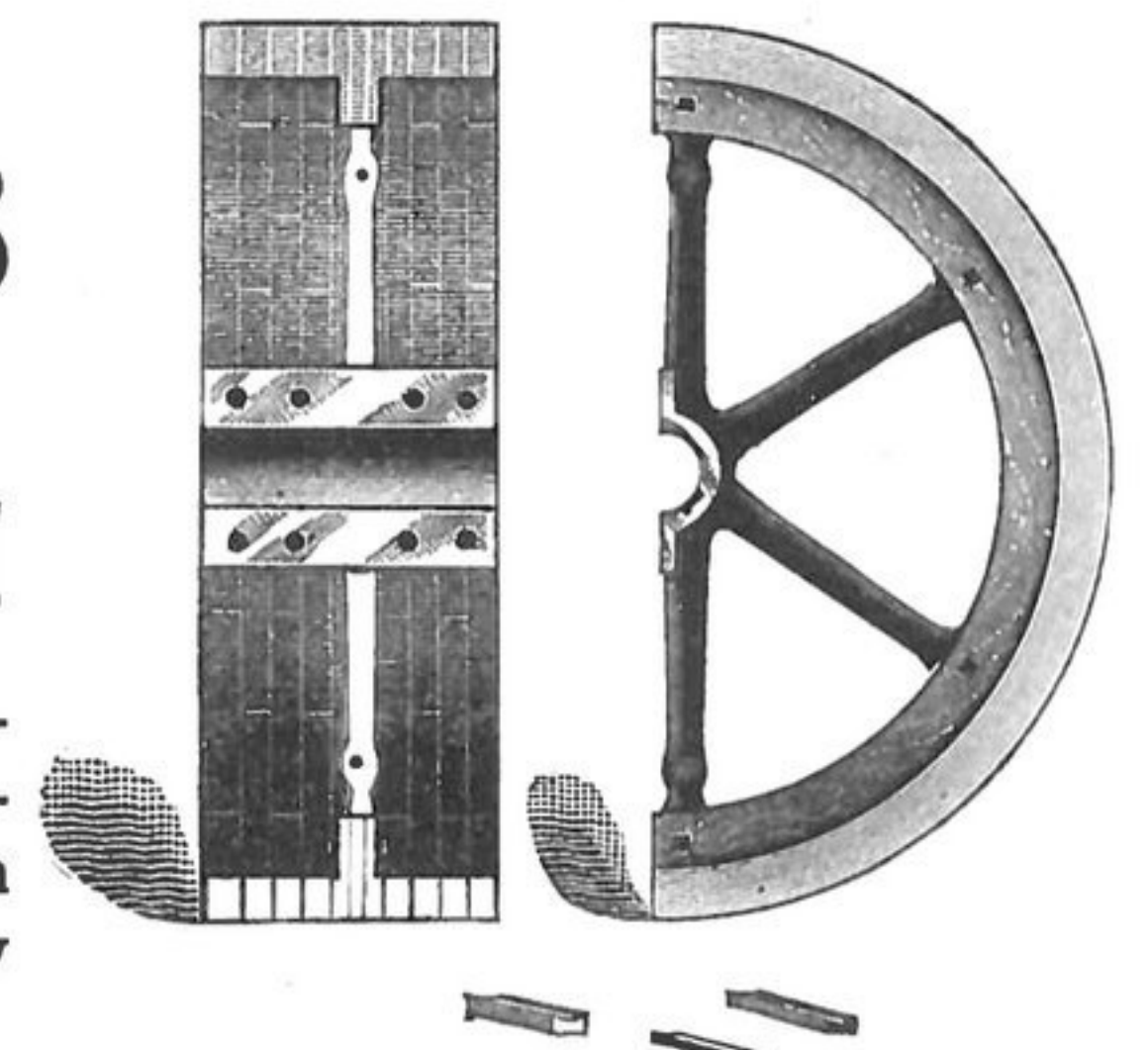
Wood Split Pulleys

WOOD RIM WITH IRON ARMS.

The Best Pulley on Earth!

Is very easily and quickly adjusted to Shaft. Has Patent Iron Bushings Interchangeable, to Fit Different Diameters of Shafts. Has FOUR or SIX Bearings on Shaft. This fastening never slips. Every Pulley strongly built and perfectly balanced.

SEND FOR CATALOGUE AND PRICE LIST.



MILLING WORLD

CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Over Bank of Attica.
McFAUL & NOLAN, - - - PROPRIETORS.
THOMAS MC FAUL. JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in un-registered letter at sender's risk.
To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.
Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning, to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trades.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD,
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

WANTED.

A situation in a mill, by a married man of steady habits; 34 years old; no children; had three years' experience in a custom mill; can furnish best of reference. Address, CHAS. BETTIS, Forestville, N. Y. 24tf

WANTED.

Situation in a Roller Mill as apprentice or assistant miller. Have 2 years' experience. Am willing to work and want to get to the front. Address, "TWO YEARS," 607 E. First street, Des Moines, Iowa. 25

SITUATION WANTED.

By a practical miller; either stone or rolls; twenty-five years' experience. Will work on salary. Would rent a good mill or buy an interest in a good mill. Can give the best references as first-class. M. V. STRAIT, Howard, N. Y. 2225

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office, 10 cents must be added to pay postage.

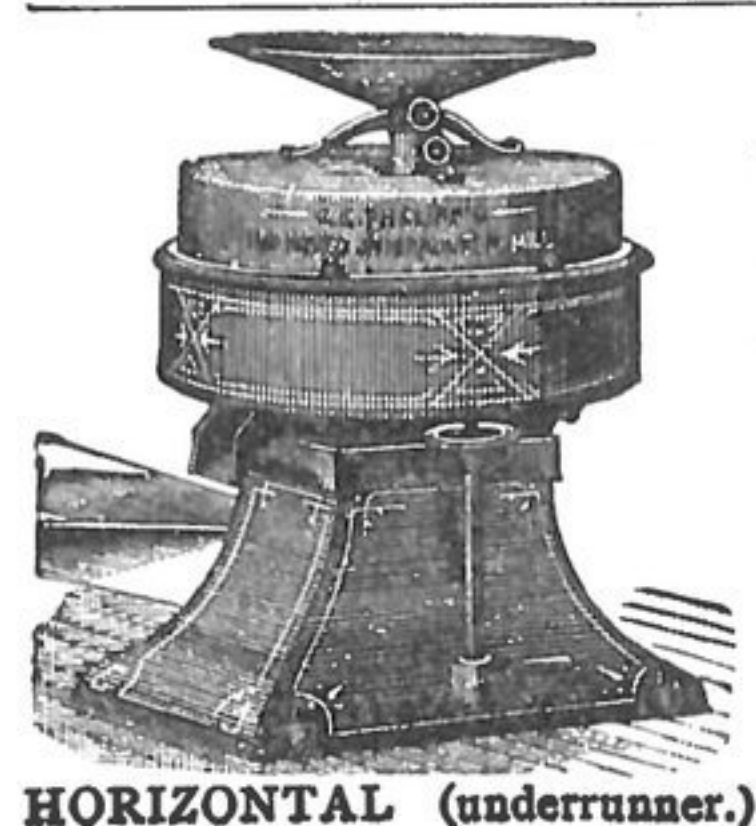
SAFE BUSINESS INVESTMENT.

A party owning flouring mill, with modern most approved machinery, doing large, profitable, local and merchant business, well established, located in growing city, population 12,000, Western New York, desires to associate more active capital. Correspondence solicited. Address, BOX 787, Waukesha, Wis. 18tf

FOR SALE.

- 10 Single Sets 9x30 Stevens Rolls.
- 2 Single Sets 7x12 Ferriers Rolls.
- 2 Centrifugal Reels.
- 2 No. 3 Niagara Bran Dusters.
- 2 No. 3 Prinz Dust Collectors.
- 1 No. 4 Hunter Purifier.
- 1 No. 6 Garden City Purifier.
- 1 No. 1 Pyne Purifier.
- 1 No. 3 Richmond Brush Machine.
- 1 No. 2 Silver Creek Scourer.
- 1 No. 00 Becker Brush Machine, over 50 Run Millstones all sizes, all complete.

Above Machines are in first-class condition and practically as good as new. Address J. B. DUTTON, 115 E. Fort Street, Detroit. 18tf



If you are desirous of obtaining the best Mill or Cob Crusher, send for our catalogue and be convinced that our's fill the bill. Can not fail to please you. They are guaranteed to prove as represented.

C. C. PHILLIPS,
OFFICE, 20 SOUTH BROAD STREET,
PHILADELPHIA, PA.

MILL MACHINERY FOR SALE.

One 24-Inch Portable Mill, wood frame, capacity 15 to 20 bushels per hour; new, best make.
One 20-Inch Portable Mill, iron frame, capacity 12 to 16 bushels per hour; new, best make.
One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 18-Inch Vertical Portable Mill, French Buhr Stone, hung on horizontal shaft; capacity 25 to 40 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 6 Dustless Separator; new, a bargain.
Two No. 4 Scientific Grinding Mills, capacity 40 to 50 bushels per hour; new.
A Lot of Elevator Buckets, brand new, best make, any size desired, very cheap.
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

FOR SALE.

Three-run mill, repaired, and a first-rate dwelling house, built last summer. I don't owe one dollar, but will sell cheap for cash, to build a mill in Forest county. Address J. S. PORTER, Lamartine, Clarion county, Pa. 2225

FLOUR MILL FOR SALE.

Water power custom and merchant mill; 2-run 4½-feet buhrs, well fitted up; doing large business; 52 miles from New York; close to depot; good reasons for selling. JOHN ORR, Mountainville, Orange county, N. Y. 2225

DAKOTA sent out nearly 25,000,000 bushels of wheat on the crop of 1888 up to December 1. That is not bad for a "ruined" crop. That amount would be a "great crop" for Chili, Argentine Republic and other "great" wheat-growing countries, of which a great deal is heard nowadays. Dakota is quite well, despite her chill of last August. Her wheat is still the best in quality known to the world, and with a fair season she can paralyze the growers of other countries with the quantity of her yield.

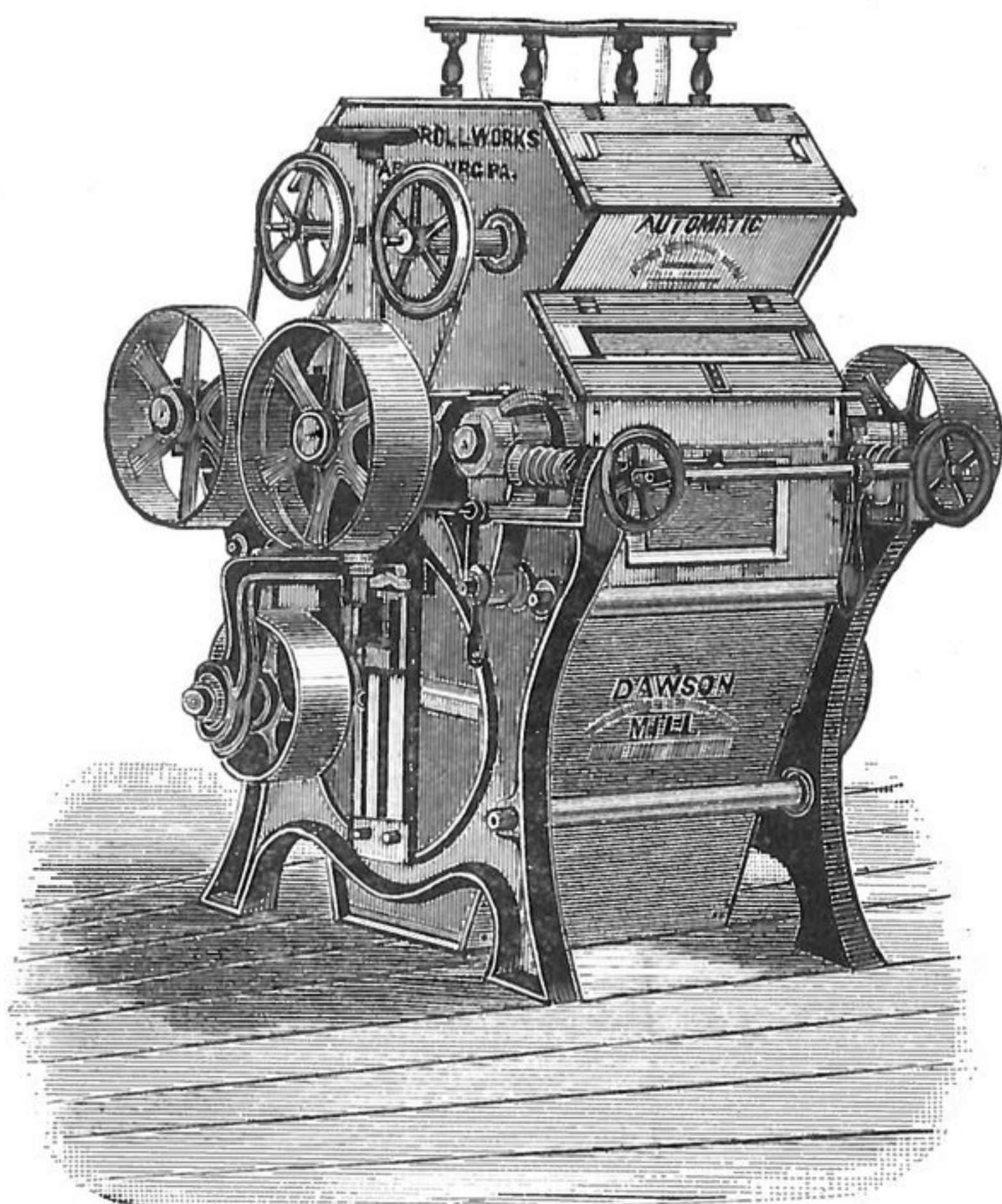
WILL May wheat be the subject of another "big squeeze" in Chicago? It looks as though it will be. Already the speculators have shown their ability to push that option up several cents a day, and those familiar with Chicago methods will hardly be surprised to see a "squeeze" in May that will make last September's "squeeze" look like a small thing by comparison. As the gamblers themselves will be the ones most seriously hurt by the "squeeze," the consumers may look on with interest and equanimity. The only element that may be depended upon to increase the price of flour to consumers is the scarcity of wheat. The "squeeze" can not make more nor less wheat than is in existence, and if the gamblers in paper wheat get badly "nipped" by their fellow-gamblers, let no tears be wasted on them.

News from the winter-wheat section is at hand, and it reads thus: "The Hessian fly is destroying the wheat crop in Central Illinois. In some places whole fields have been destroyed. The dry freezing weather has also aided in killing wheat." That settles it! We knew disaster was to be expected, because a certain professional prognosticator recently said the conditions were all favorable, but we were not prepared to see the disaster so promptly follow his favorable prognostications. In the meanwhile, do not swallow all the crop reports for the next two months. The bulls are said to be making preparations to boost May wheat away up into the clouds, and little ghost stories about Hessian flies ravaging the fields in mid-winter help wonderfully in leading the public to look for higher prices. Up to date the Maryland and Delaware peach crop, the Florida strawberry crop and the ice crop are the only crops reported destroyed in the United States.

WHERE, O where does the Millers' National Association come in? At the Milwaukee convention all mention of that organization was omitted. At Indianapolis the omission was repeated. What's up? Is the spring-wheat association to be absorbed on the sly by the "National"? Is the winter-wheat association to be gobbled surreptitiously by the "National"? Is the "National," with its 100, or 200 or any other number of members, to be quietly swallowed by the spring-wheat and the winter-wheat associations? Where is Seamans? Why don't some one do something to locate the "National"? Either the spring-wheat or winter-wheat association outnumbers the "National" in membership and influence, and it may be that the "National" managers are preparing a grand strategy in the way of establishing a lien on those associations and yanking them into membership "nolens volens." That will be a dangerous operation—for the "National." A 2-inch oesophagus can not deglute a 2-rod morsel.

THE DAWSON ROLLER MILL.

Every practical miller, who understands the necessity of making the best flour at the least possible cost, will be interested in the famous Dawson Roller Mill, shown in the accompanying engraving. This mill is manufactured by the Dawson Roll Works, Harrisburg, Pa., who make also a full line of roll feed-mills and corn-meal mills, and all of whose wares are characterized by good designs, fine workmanship, first-class materials and thorough efficiency. The Dawson Roller Mill is furnished with the Dawson patent automatic centrifugal feeder, which can never fail to feed the stock the full length of the rolls in an even sheet. This is the latest and, the makers confidently claim, the best feed now on the market. It requires less power, is simple in construction and may be placed on machines of any style at a slight expense. The roll-bearings are made of phosphor-bronze, which permits the rolls to be run at any speed without danger of heating, as friction is reduced and less oil is required for running. The famous Dawson corrugation is used on the rolls. This corrugation has a granulating instead of a cutting action, making it suitable for either long or short system mills. Millers who are about to



THE DAWSON ROLLER MILL.

build, rebuild or remodel should correspond with this firm, to secure their latest catalogues, circulars and price-lists. Correspondence will be promptly answered and will in all cases result profitably and satisfactorily.

WHY EUROPEAN COUNTRIES ARE POOR.

American institutions are severely criticised in Europe. The average European writer is never weary of denying to the institutions of the United States the power of making this country the best in the world for labor. He says it is not republican institutions that have made the United States rich, peaceful, powerful and prosperous. He insists that it is our wide domain, our natural resources and all our natural advantages that have made the United States what it is. Singularly enough, he fails to explain why other great lands, just as favorably situated as the United States, are not the homes of powerful and prosperous nations. He claims that land and natural advantages are responsible for American progress, but he does not, because he can not, prove that contention. One thing is certain. However open to criticism the institutions of the United States may be, there is one important thing in which this country possesses an immeasurable advantage over all others, and that thing is the direct outcome of our institutions and not of the extent of our domain or our vast and varied natural resources. Reference is made to our lack of a great standing army. Whatever else may be our shortcomings, we are wise enough to

be peaceable, and because of that we are able to avoid the terrible burdens that weigh down the European nations. How great those burdens actually are may be seen in the following compilation, by a high British authority, showing the war strength, the second reserves and the final reserves of the principal continental countries of Europe. The figures are from the most recent documents, reports and statements of the various governments. The figures are as follows:

	War Strength.	Second Reserves.	Final Reserves.
Germany.....	2,520,000	1,525,000	1,860,000
France.....	2,440,000	1,570,000	1,700,000
Russia.....	2,495,000	1,985,000	2,200,000
Italy.....	1,010,000	1,320,000	1,200,000
Australia.....	1,145,000	1,470,000	1,700,000
Turkey.....	620,000	310,000	340,000
Balkan States.....	250,000	165,000	195,000
	10,480,000	8,345,000	9,195,000

The "war strength" represents the number of men ready for offensive warfare in case of an outbreak in 1889. The "second reserves" are the men who in an outbreak of war in 1889 would at once join the colors, but remain at home unless their services were urgently needed at the front. The "final reserves" are the men who, in addition to the "war strength" and "second reserves," would be available for defensive purposes in case their country were invaded. The 10,480,000 men of the "war strength" are all trained soldiers, who are already with the colors or have served with them. The total is 28,020,000 men, not including the 680,374 soldiers at home and the 350,000 soldiers in India which Great Britain supports, nor the considerable standing armies of the smaller European nations. All these forces are actually supplied with arms, and the average American, who scarcely ever sees a soldier, has only to compute the cost of maintaining, arming, equipping and caring for these millions, and to reflect that they are drawn from the ranks of producers and converted into consumers and destroyers, in order to arrive at one sound and safe conclusion concerning the poverty of Europe. To that cost add the enormous totals for forts, navies, guns and other costly paraphernalia of militarism, and it becomes a matter of wonder that Europe, with only about 300,000,000 inhabitants, can stand the wasteful and exhausting drain upon her aggregate resources. Comparison shows that in Europe every soldier represents 10 inhabitants, while in the United States each soldier represents 3,611 inhabitants. Americans may well rest contented with the comparison. American institutions may lack the splendor of those of Europe, but Americans may well afford the lack. The greatest weakness of Europe lies in what is falsely called her "great strength." The greatest strength of the United States lies what is falsely called her "great weakness." The European "strength" is the fever, the delirium of contest. The American "weakness" is the normal rest belonging to wise and profound peace.

COTEMPORARY COMMENT.

It seems strange that some of our exchanges, notably those opposed to our work, should use their best endeavors to impress upon the people the assertion that there was practically no adulteration. They even go so far as to affirm that there is no harmful adulteration whatever, and what little adulteration exists is perfectly harmless and would not exceed two per cent. of the whole amount of the food consumption.—*Anti-Adulteration Journal*.

Stories about destruction of winter wheat by Hessian flies must be taken with several grains of allowance. Hessian flies are workers, but they have neither fur-lined overcoats nor gas-stoves to assist them in their business.—*Chicago Daily Business*.

When the owners of but a limited number of mills above a certain capacity can not get together to discuss questions of mutual concern without having a squabble, what hope is there of maintaining a national association of mill-owners? The wind-up of the Milwaukee meeting left the winter-wheat and the spring-wheat millers wider apart than ever, and now we have two distinct associations, both ostensibly work-

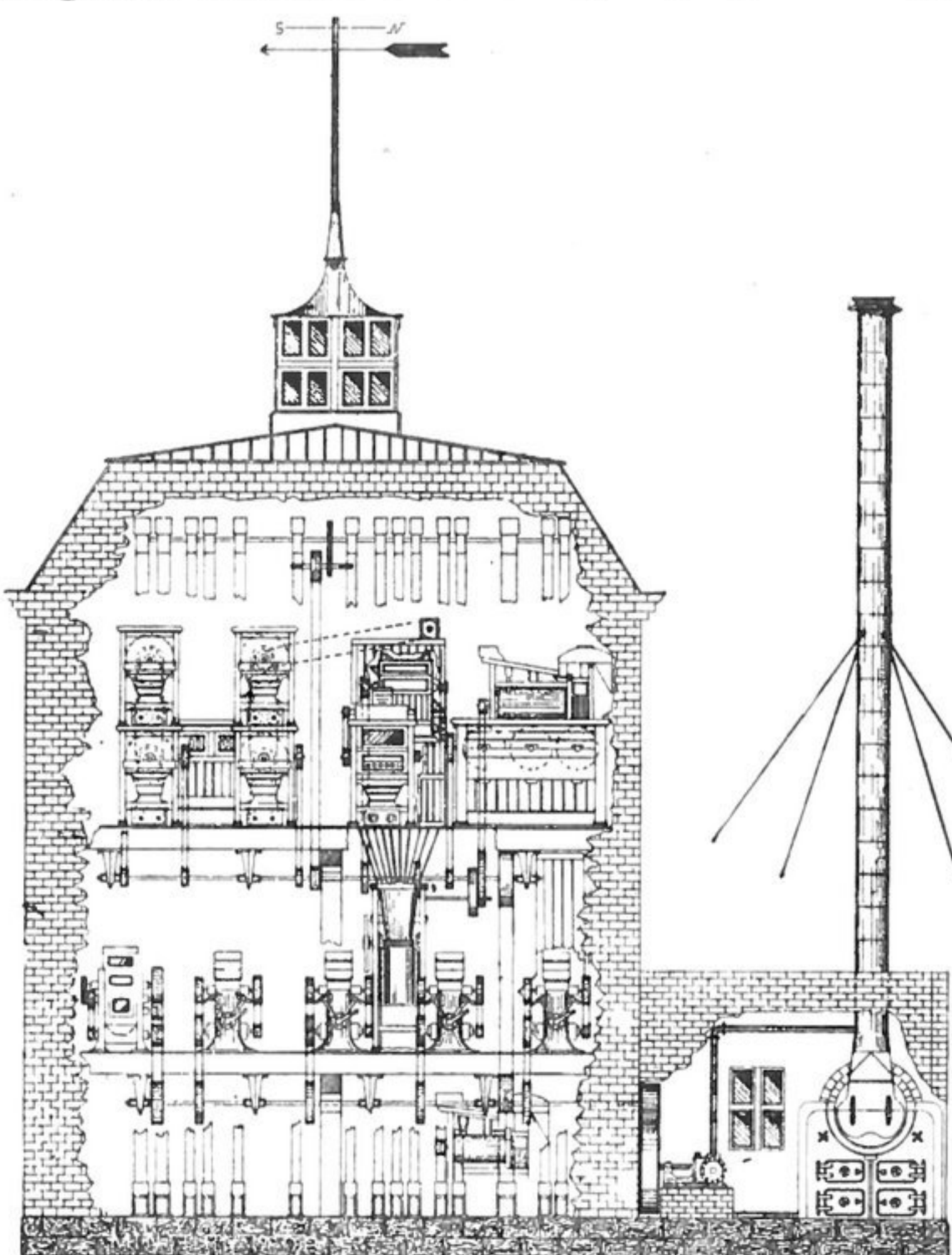
ing for the same end, a cleaning up of the surplus for an ultimate improvement in the flour trade, but each ready to cut the other's throat at the first opportunity.—*The Modern Miller.*

The convention at Indianapolis was a success in every respect. The Central Association is a mightier factor in the proper government of the milling interest because of it, millers have been drawn into closer fellowship as an outcome of the communion which this occasion has afforded, and the good work here accomplished will give an impetus to organization everywhere, such as it has never had, on the basis of present conditions affecting the trade.—*The Millstone.*

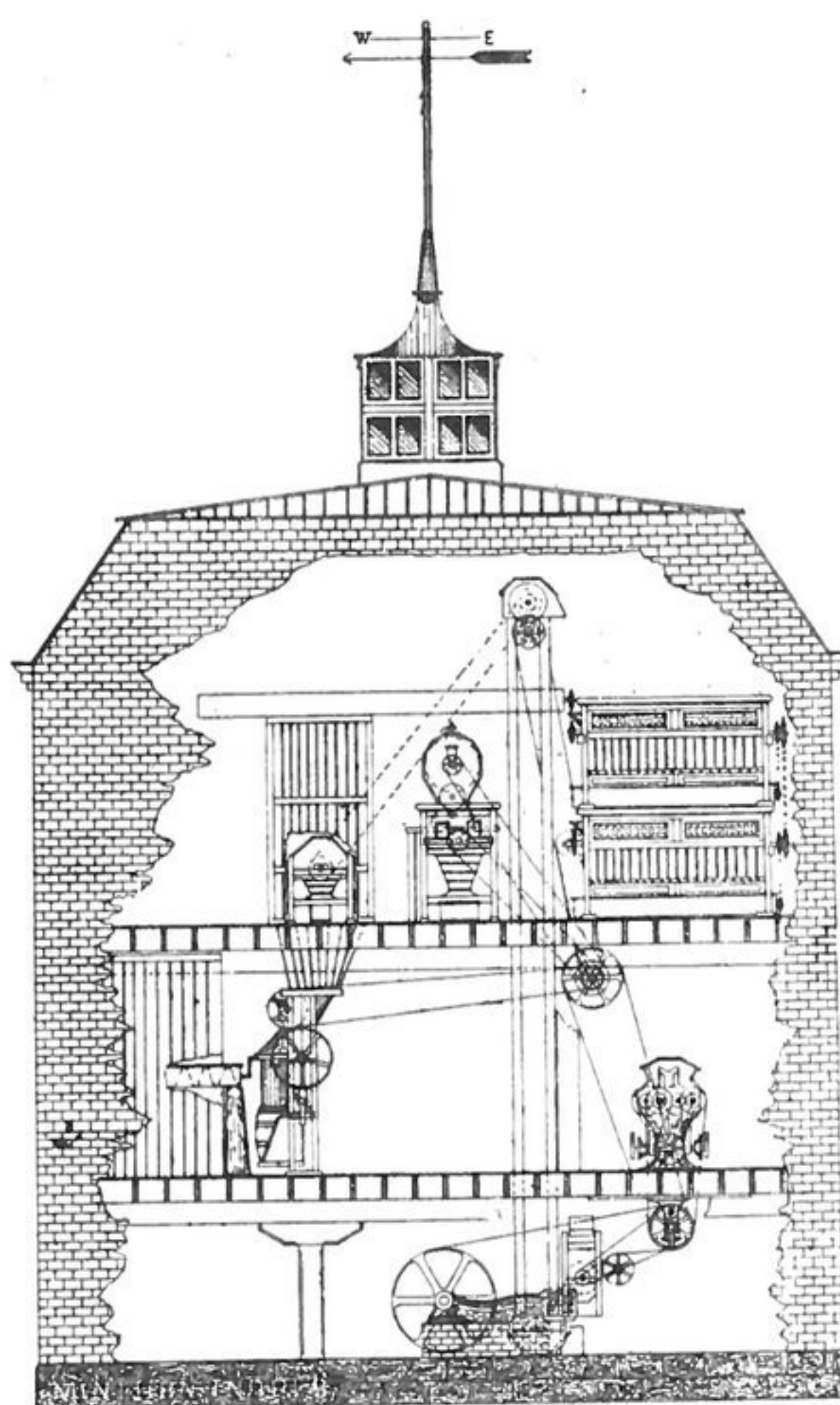
THE ALLFREE SHORT SYSTEM MILL.

Particular attention is called to the outline plans of a cheap short-system flouring-mill shown in the accompanying engravings. The short system

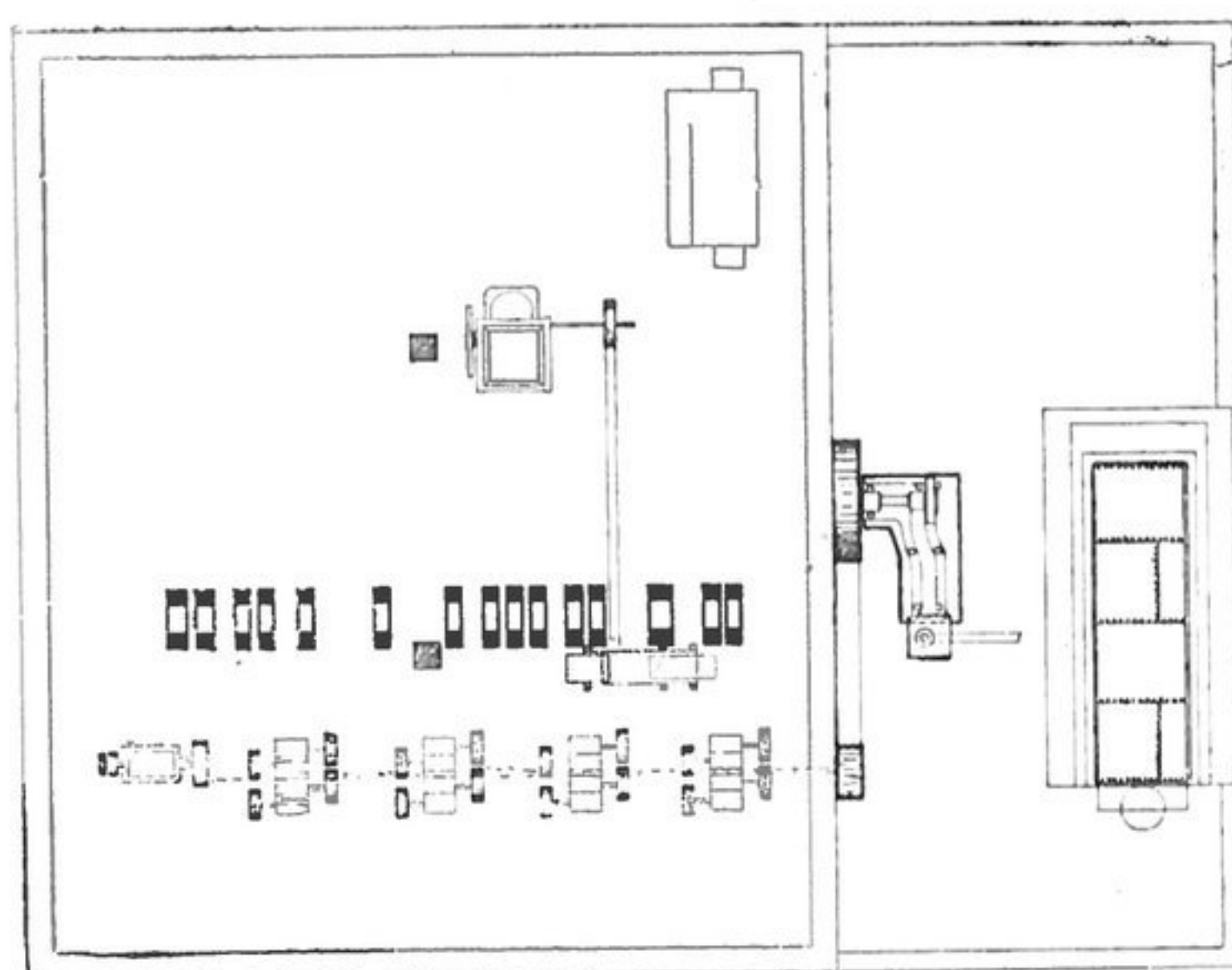
has been productive of a vast deal of thoughtful study and planning on the part of mill-builders. The time when the cost of a plant was a secondary consideration passed away long ago. In fact, the short system was thought out for the simple and sufficient reason that something had to be done for the millers who had small mills on their hands that had to be remodeled or else be closed, or wished to build a mill in a locality where the trade would not warrant a large mill. The demand was for some effectual plan to meet the necessities of millers thus situated, at a cost which would not be prohibitive. Consequently the short system was evolved, and since it proved a success mill-builders have endeavored to provide an effective plant at as small a cost as possible. The plants and arrangement shown herewith are those of a short-system mill built by the well-known J. B. Allfree Company, of Indianapolis, Ind. Its capacity is from 50 to 60 barrels a day, and the entire outfit is furnished at a very reasonable price, in fact at a price that would surprise many millers. The machinery may easily be placed in a floor space of 35 by 30 feet, not taking the engine and boiler room into account. When the mill is planned new, from the ground up, it contemplates a building of the size just named, with two stories, basement and attic. The basement is 8 feet high and each of the stories 11 feet. In the basement are the power connections, the pulleys for driving the rolls, the elevator-boots,



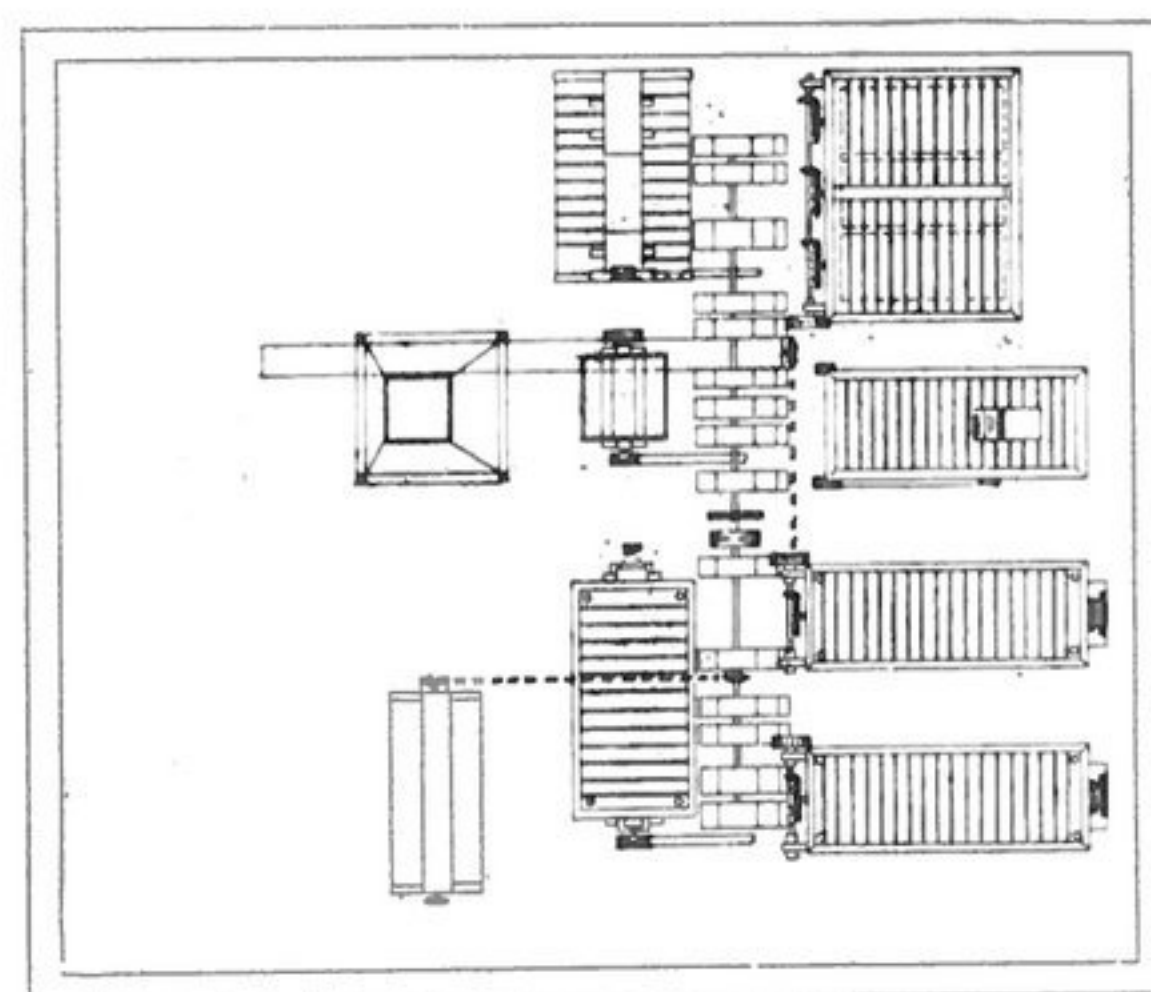
SECTIONAL SIDE PLAN.



SECTIONAL END PLAN.



PLAN OF BASEMENT.



PLAN OF BOLTING FLOOR.

etc. On the grinding floor are the rolls and packer, and on the bolting floor the reels, purifier, cleaner, etc. In the attic are the elevator-heads, etc. The machinery provided for in this plan embraces the Keystone Roller Mills, the Allfree Centrifugals, Allfree Scalpers, "Success" Bolters, Allfree Purifier, Climax Bran Duster and the Allfree Flour Packer. All these machines have been made perfectly familiar to our readers by illustrated articles in recent issues of THE MILLING WORLD. This is a short system, not on paper alone, but in actual and successful operation in a large number of mills. Millers who are about to build or rebuild, and who desire to secure thoroughly satisfactory mills of moderate capacity, will do well to correspond with the J. B. Allfree Company, who build mills of all sizes as well as a complete line of first-class mill machinery. All desired information about the mill illustrated herewith may be obtained by correspondence. The Allfree complete outfits are giving thorough satisfaction

wherever employed. No miller who is about to build or rebuild can afford to ignore the claims of this company to consideration. Their mills are scientific and practical embodiments of correct principles and wide experience, and the millers who desire to get the most efficient outfits for the least money should study their plans and write to them for full particulars. They have made the building of economical and thoroughly satisfactory mills of moderate capacity a study for a long time, and they now offer the public all that can be desired in that line, as the mill illustrated herewith shows.

This mill was illustrated in the issue of last

week. By an unfortunate error the cut of the bolting floor was inverted in that issue, and we reprint the description for the benefit of all concerned.

POINTS IN MILLING.

EVERY first-class milling-machine now on the market has a base imitation following close on its heels. That is the compliment paid to merit by inferiority. So soon as a really meritorious machine is perfected, an imitation comes, and generally the imitation, which costs less than the original machine, resembles the original in appearance closely enough to insure a sale in competition with the original. That is where the mischief is done in mills. It would not be an impossibility to find a mill furnished throughout with these imitations. I know several that boast a majority of im-

itations of standard machines made by standard houses. They look like the originals. They cost less. It is in the matter of work they fail. I have never yet seen a copied machine that equaled the machine after which it was copied. The reason of the inferiority is plain to millers who understand patent laws and their somewhat troublesome restrictions to conscienceless infringers.

MILLS furnished with "oleomargarine" machines start in at a disadvantage, and that disadvantage naturally and inevitably increases every day the mills are operated.

How many millers believe a half or a quarter of what the machinery agents tell them? How many agents believe that the millers, to whom they talk, really believe a half or a quarter of what they, the agents, say? An amazing amount of libel is talked by certain of these agents, who are unscrupulous enough to say at any time and in any place any thing which they think will aid them to fasten a sale or beat a competitor. Let millers treat the unscrupulous agents as they deserve to be treated, and they will soon turn over a new leaf.

ARRANGING a mill with the greatest care is all right, but it is only a part of the miller's work to arrange his mill. After he has planned to secure the greatest convenience and economy in operation, he still has to go on and run the mill to the highest and best point possible. I sometimes find mills so well planned and equipped by the experienced builders who erected and equipped them that absolutely nothing more could be desired, and yet these admirable mills often fail to pay because they are not run properly. Only two months ago I visited a mill that was erected and equipped to perfection. It was designed to grind 75 barrels in ten hours, and it was large enough, had machinery enough and had power enough to do it easily, but the men running it were turning out 50 barrels and even less a day, and they claimed that it was impossible to run it up to 75 barrels. It had run 75 barrels before it was turned over to the owners, but its capacity, under the men in charge, sank steadily. I suggested that the firm who had furnished the machinery be notified. That was done, and two weeks later, on revisiting that mill, I found it turning out 75 barrels easily and satisfactorily. The trouble had been with the men in charge, as the agent of the firm soon discovered, and he soon convinced the owners that they had been paying salaries and buying fuel and wearing out machinery enough to grind 75 barrels a day, where they were getting only 50 barrels or less a day. Without increasing their expenses he showed them how to make the mill do its designed work.

Poor management, the reader will say. Yes, it was, and it is just that sort of management, that sort of failure to understand how to run a flouring-mill properly, that is at the bottom of many of the failures in milling. The miller who is not fit for his work can easily waste much of the power and the capacity of the mill, and the unfit operator is generally one of the most potent elements in making an establishment of any sort unsuccessful.

LESS and less is heard about the return of the buhr to supremacy in making flour. Several years ago, when the flour-milling industry began to be depressed, the trouble was charged to the rolls and the expensive and over-elaborate gradual-reduction system. That charge is now no longer heard. It has been conclusively proved that rolls do not necessarily imply expensive over-elaboration, and since the short system has come into recognized form and taken a distinct position and held it by numerous demonstrations of merit, the talk against rolls has decreased. The buhr is a valuable adjunct to rolls, and the most advanced millers recognize it in that relation, but to attempt to bring it again into general use, to the general discarding of rolls, is the dream of insanity. The buhr will always remain, and it will always find wide use, but it will always stand second to rolls. To show the relative position of buhrs and rolls to-

day in the United States, it is only necessary to refer to the total output of flour in the country. That output is not far from 75,000,000 barrels, and it is open to doubt whether a fourth or a fifth of that total is produced on buhrs. The proportion produced on buhrs may even, it is claimed, fall below a tenth of the total. The rolls of one great milling center turn out, or can turn out, nearly 11,000,000 barrels of flour in a year, a sixth or seventh of the total output of the country.

A PRETENTIOUS "authority" in a northwestern town announces that there are less than 600 mills in the United States that can grind over 200 barrels a day. That announcement may be taken for what it is worth, but when that same "authority" proceeds to couple with it the assertion that only two milling journals are needed to cover the field in the United States, I think exceptions are in order. That "authority" may think that in reaching 600 mills it covers the field, and probably it does so far as its circulation among millers is concerned. In all the mills I have visited, ranging in capacity from several hundred barrels down to the smallest capacity, that "authority" is the one journal I see least. If it goes gunning for millers, with the intention to bag game, it will find hundreds of flour-makers, who have never seen it nor heard of it, yet who are perfectly familiar with one or more of the real milling journals. As that "authority" has said how many journals ought to represent the milling industry, perhaps it will now be kind enough to go on and point out just how many mills, and what particular mills, ought to be allowed to do the flour-making act for the United States. There is nothing like completeness and thoroughness, even in the foolishness of persons like those of the northwestern "authority" alluded to.

GRAIN of all kinds is going to the rolls. The corn, rye and buckwheat meal of the present day would be a surprise to our ancestors, who died before the advent of the rolls, could they return to the flesh and see the things of the earth to-day. Corn-meal made on rolls is fast taking the lead in the markets. Millers who are building mills, to grind miscellaneous grists for neighborhood custom, can now get corn-meal roller mills that will enable them to turn out as good an article as the most fastidious can desire. The roller revolution is practically complete.

HUNGARIAN MILLING LAST YEAR.

Following is a summary of the Hungarian milling industry, during 1888, by the "Pester Lloyd," of Budapest: The two harvests of 1887-88 and 1888-89, which were both abundant, were factors of great moment to the Hungarian milling industry. The first half of the year clearly showed to what an extent the high flour tariffs of the importing countries of Western Europe, Germany, France, Italy, Spain, Portugal and Switzerland, have trenched on the very conditions of existence of our milling industry, as in spite of the extraordinarily large surplus left by the harvest of 1887, our millers found it impossible to work full time and realize the most modest profit on their work. Those mills which were able to close the first half of the year with a profit were enabled to do so only by virtue of uncovered sales of milling products, always a risky operation. They certainly made no legitimate profit on their grinding, which profit ought not to be absent in an abundant harvest year under normal conditions. In our opinion a slight reduction of output should have sufficed, assuming it to have been general, and undertaken at the right time to assure a moderate profit on the home trade, even during the first six months of the year. That our abundant wheat harvest of 1888 coincided with short crops in England, France, Italy and Germany, as well as with an important shortage in the American wheat harvest, was a most unusual and rare occurrence, but our mills were in the first two months of the second half-year only partially able to turn this lucky opportunity to good account. This was partly due to the fear of over-production and partly to the fact that, owing to the hurried sales of individual mills, which sales were themselves occasioned by the first factor,

our mills had sold forward a more or less large part of their products at the very lowest prices. Thus the rise in the values of wheat and flour at the beginning of August and the end of September was only of partial benefit to the mills. As a matter of fact, the low forward sales must have eaten away the grinding profit even of the later months, and supposing that all the Budapest mills should be able to pay satisfactory dividends, the dividends earned will not, when the size of the turnover and the heavy capital engaged are taken into account, overstep moderate bounds. They will certainly not answer the sanguine anticipations of those persons who, in looking at the situation, lose sight of the paralyzing effect of the high flour tariffs. The results of the coming first half of 1889, which is again ushered in by heavy sales from our mills, will essentially depend upon the turn of the American markets. Even at the wheat values and ocean freights now ruling in the United States, the American millers are compelled to ask much higher prices than are demanded by the Hungarian mills. During the months of August to December the export of American flour to Europe had diminished by about 2,000,000 sacks compared with the same period of the previous year; and although this heavy shrinkage will in the first instance benefit the English mills, which are again running full time, there is still an abundant margin left to the Hungarian mills for safely placing their whole surplus of fine flours and a portion of the middling grades as well in Great Britain, the more especially as the wheat crops completely failed in the Western states of the American Union, where all the greatest American merchant mills are situated. It will therefore be conceded that to-day it is not American competition, but the precipitate competition of Hungarian mills among one another that depresses flour prices in England, and it would almost seem that our mills, disheartened by the deadness of foreign markets, a dullness caused by heavy arrivals of wheat, and which to all appearance will only be temporary, have for the time lost all confidence in the situation, whereas, carefully examined, it appears now as before exceptionally favorable for the export of Hungarian flour to the markets of Great Britain, and therefore for the attainment of a sound state of business. The millers should also look to the economical factors of the situation; we would lay particular weight upon the bringing of flour export freights to the same level as those of wheat. Flour is a product which calls for especial care in manufacture, as the burden laid on it by foreign tariffs is heavier than in the case of the raw material.

THE ORIGIN OF SWEET CORN.

Concerning the origin of the delicious "sweet corn" of the United States the "Scientific American" says: While the history of the origin of the sweet variety of Indian corn shows it to be quite modern, its existence seems to have been known in New England as early as 1779, when a few ears found among the Indians on the Susquehanna were taken to Plymouth by an army officer. In a very exhaustive history of Indian corn by Dr. Sturtevant it is stated that sweet corn is not referred to by Jefferson in his "Notes on Virginia" in 1781, nor by Thorburn in 1817, nor by Fessenden in 1828. In 1832 "sweet or sugar corn" is mentioned among garden vegetables by Bridgeman. In 1851 Buist mentions two varieties. In 1853 Salisbury says of the "early sweet corn," the variety introduced by Captain Bagnol, of Plymouth, that one kind has a white and the other a red cob. In 1854 Schenk mentions the extra early, the eight-rowed sweet and Stowell's sugar, which had been brought into notice within a few months. In 1858 Klippart mentions in addition the mammoth sugar. In 1866 Burr describes twelve varieties. The seed catalogue of Thorburn in 1828 offers one variety, the sugar or sweet; in 1881 sixteen varieties; in 1888 twenty-six varieties. However this sort, as distinguished from Indian corn, may have originated, it has furnished a notable example of the influence of cultivation, until it has become an indispensable article for the table in its season and one of the most highly prized vegetables for canning. So numerous are the present varieties that from twenty to thirty are usually advertised by leading seedsmen.

UNPROFITABLE AGRICULTURE.

Says a European writer: In France, Germany, Italy and even Russia agriculture "does not pay." English, French, German and Russian landlords and farmers loudly cry for protection. And so we have come to that utterly anomalous but most characteristic state of affairs under which nowhere does it "pay" to grow food for the steadily increasing population of the civilized world. Whatever the system of land tenure, the landlord-and-farmer system of Great Britain, the small peasant proprietorship, the American right of first occupation, or the Russian landlordism with partially enslaved labor, the complaints are the same. A rich crop is considered as a curse, and only those peasants bless it who grow cereals for their own use. The very generality of the complaint is most suggestive, and its generality depends upon a general cause, namely, that the landlord, the state and the money-lender take for themselves so considerable a part of the produce grown by the farmers, from one-fourth to one-third and more, that agriculture can not go on under such circumstances; the tribute levied upon it is too high, and it is rendered still heavier by the tribute levied by the manufacturer. The Russian peasant will not always sell his wheat and live on sarrazin and rye; he will not sell even his rye and live for four, six and sometimes eight months every year by mixing birch-bark and auroch-grass with a handful of flour. The Hindoo will not always labor for a few ounces of rice, and the American railway speculation will consume itself very soon; while on the other side laborers of the manufacturing nations of the west of Europe, with their curtailed wages and uncertainty of employment, can not afford to pay 10s of tribute to the landlord and several shillings more to the manufacturer and middleman for every quarter of wheat which they consume. Manufacturers, we are learning it now at a heavy cost, can thrive only when their high chimneys rise amid the golden fields. Modern civilization is blotting out the old antagonisms between the city and the country; and after the haughty city has vainly tried to live without the field it must return to it; it must recognize that industry and agriculture are two independent forms of human activity deriving force from mutual support.

SPECIAL NOTICES.

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INTERESTING EXPERIMENTS WITH ELECTRICITY AND LIGHT.—Dr. O. J. Lodge, a holder of the theory that light is an electric vibration of the ether, has been endeavoring to produce these waves by direct electric action without the intervention of heat. The means adopted was the oscillating discharge of a Leyden jar, with a rate of vibration as high as 1,000,000 per second. The waves thus obtained were about three yards long, but, according to Dr. Lodge, were light in every particular except wave length. To reach the wave length of light, they would require to be shortened from three yards to the hundred-thousandth of an inch. The electric waves of Dr. Lodge travel through space at the same speed as light and are refracted and absorbed by material substances according to the same laws. Hence Dr. Lodge concludes that if we can only generate electric waves sufficiently small we may entirely revolutionize our present modes of obtaining artificial light.

GENERAL NOTES.

THE new government silver vault is 85 feet long, 50 feet wide and 12 feet high. It is fenced off into 16 compartments by open-work steel partitions. Each compartment can accommodate 6,500,000 silver dollars, weighing 200 tons. Thus the silver in the vault weighs 3,500 tons of 2,000 pounds avoirdupois to the ton.

A FIRST-CLASS American watch, well-kept, will last thirty years, or sometimes even longer, before the works wear out, but the average life of an ordinary low-priced American watch is ten years, and that of a Swiss watch of the same grade seven years. The length of life for a watch depends largely on the number of its jewels. The range of prices for American watches runs from \$5 to \$500, the costliest being a split second minute register timing watch. In the United States about 3,500 watches are manufactured every day.

AMERICAN BREADSTUFF EXPORTATIONS.

American breadstuff exportation has dwindled considerably during the past year in consequence of unusual wheat-crop conditions both at home and abroad, but the business is by no means dead. Nor is it moribund. In case the crops of 1889 come up to the average, particularly in wheat, the business will speedily resume its former proportions. On the whole, the situation even now is encouraging, as it begins to be apparent that Europe is still very short of wheat, despite the heavy drafts made on Russia and India for supplies to make up for the deficiency in American supplies. Under the stimulus of that shortage in Europe, January witnessed some increase in wheat grain exports, the total for that month aggregating 3,173,596 bushels, compared with 2,913,207 bushels in January a year ago. For the seven months ending January 31, 1889, the wheat exports footed 32,119,891 bushels, against 47,954,877 bushels for the same period a year ago. Wheat-flour exports in January this year were only 685,244 barrels, against 1,023,923 barrels in January last year. For the seven months ending January 31, 1889, the wheat-flour exports were 5,565,394 barrels, against 7,266,589 barrels in the same months a year ago. The total value of the breadstuff exports for January this year was \$10,833,224, against \$8,343,298 in January last year, and for the seven months ending January 31 this year the total value was \$73,814,700, against \$82,501,764 for the same months a year ago.

The shortage in the wheat grain and flour exports is partially made up in the increase in some other lines. Corn, for instance, has been in large export demand. The total for the seven months ending January 31 this year was 31,136,599 bushels, worth \$15,879,363, against 14,194,118 bush-

els, worth \$7,333,027 in the same months a year ago. In the same periods corn-meal exports increased from \$462,633 to \$560,686; barley from \$126,986 to \$765,446; oats from \$77,041 to \$173,088; oatmeal from \$106,206 to \$140,042; rye from \$12,219 to \$57,784. Therefore it is evident that, as there is an increase in every line but wheat, the falling off in American breadstuff exports is due only to the shortage in wheat. According to the latest reports there is in reality only a very small quantity of wheat grain left in the United States that is available for export, and, as the southern hemisphere crops are turning out badly, it will be reasonable to expect that the European demand for the next four or five months will make such calls upon the limited American supplies that every available bushel will be called out and that prices will increase enough to bring the money value of the exports during this fiscal year up to and even above the average.

PURIFYING SECOND MIDDINGS.

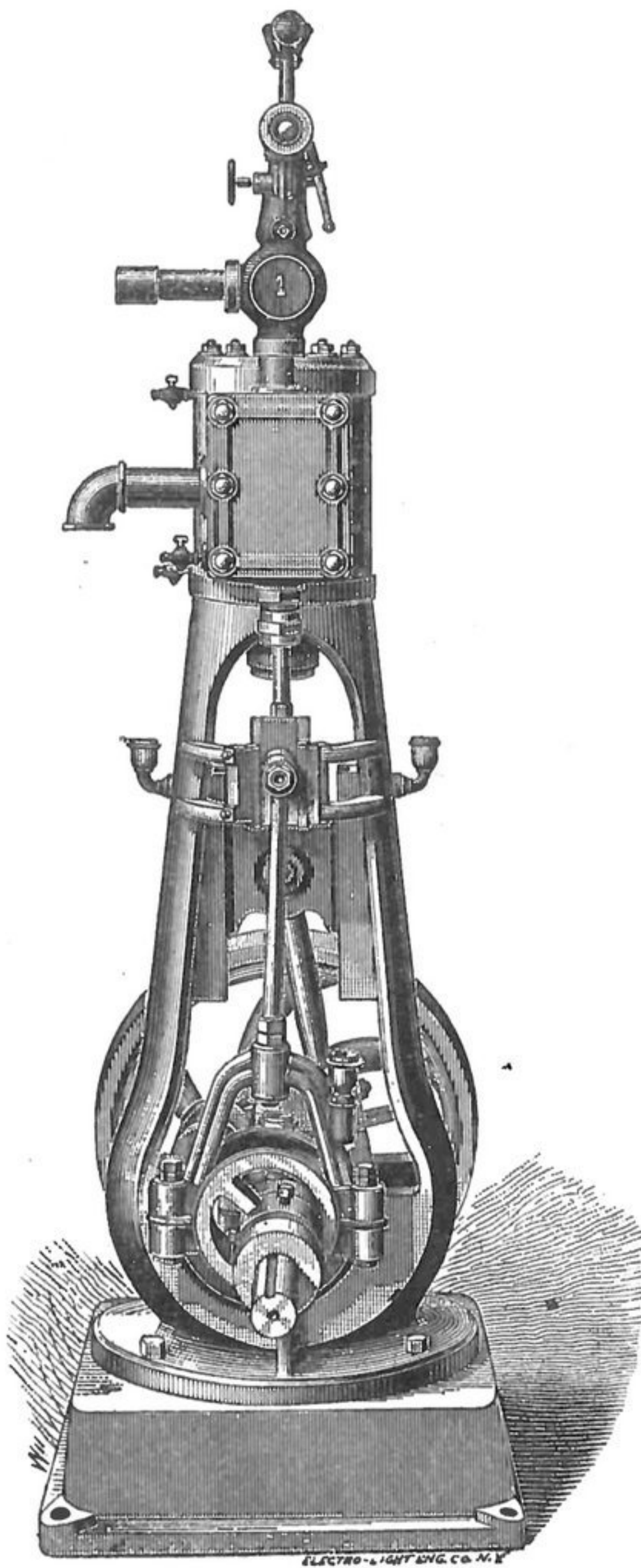
The writer has made the claim that the short system of milling is not only the cheapest to the millers, but is also capable of producing the best results if the requirements are fully enforced and all of the details executed. Without pursuing that kind of a course no sort of an undertaking can be made to win. Now it is well known by all practical men familiar with the flour-making business that when the best has been done in purifying first middlings of all grades, unless the very finest, there still remains clinging to a part of the product a portion of bran or germ fiber, which when further acted upon by the rolls is reduced to a still greater degree of fineness which makes it more injurious in its effect upon the flour, unless separated from the real flour stock before it is further reduced. As a rule no effort is made by short-system millers to do that, and beyond a certain point very little effort is made by any other class of millers to do it.

There is what is called a second middlings product, the joint result of a further reduction of medium and coarse, or germ middlings, which contains a great deal of fine bran fiber which should be removed and which should be as carefully purified as the first stock; more so, in fact, as it requires more careful handling to do it justice. To do that properly a third purifier must be provided for all mills of 50 barrels or over, to which all the second middlings, or all that require it, should be sent before being further reduced. It is true some of the products will be found quite soft and not so easily handled as are the first middlings; but that is all the more in favor of its being done and will induce carefulness in conducting the operation.

As has been explained, there are four flouring-reels in a 50-barrel short-system mill, the flour product of the first two being as good as can be obtained, if the mill has been properly arranged and is properly operated; but the last two reels have to catch all the refuse from the other, and as straight flour can not be made without using the whole of number 3 reel's product and a part of number 4, it can be readily seen that the whole product of the mill is in that manner vitiated. Now if the second middlings product is carefully purified before being sent to the third and fourth smooth rolls, the flour from the third reel will be nearly equal in color to that of the first and second reels; and the fourth reel product will be greatly improved, the head only of which goes into the straight brand.

With that important fact in view, all millers should make a study of how best to clean up the second middlings before grinding them; not only the second middlings, but every other product that can be reached by cleaning process before being finally reduced to flour. The chief obstacle in the way of good flour-making lies in the neglect properly to clean the stock. The wheat is often neglected and is not half so well cleaned as it should be. In many cases all the middlings stock suffers in the same way. All kinds of flour-making stock can be cleaned while in a hard condition and the dirt separated from it; but after it has been reduced to flour all is too soft to be well separated, and the bad must go with the good, resulting in inferior flour.—R. James Abernathy in the Mechanical News.

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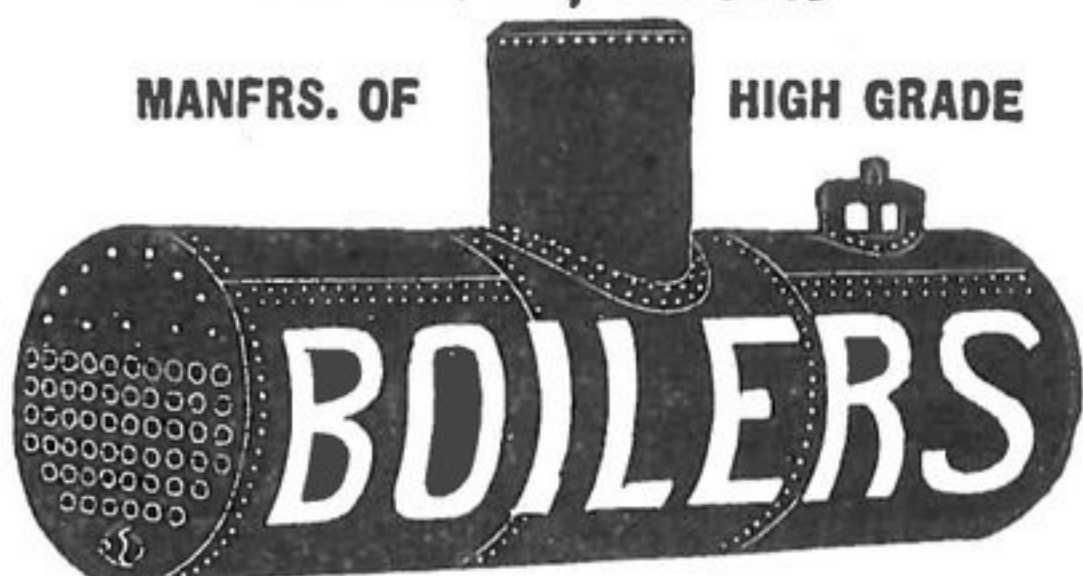
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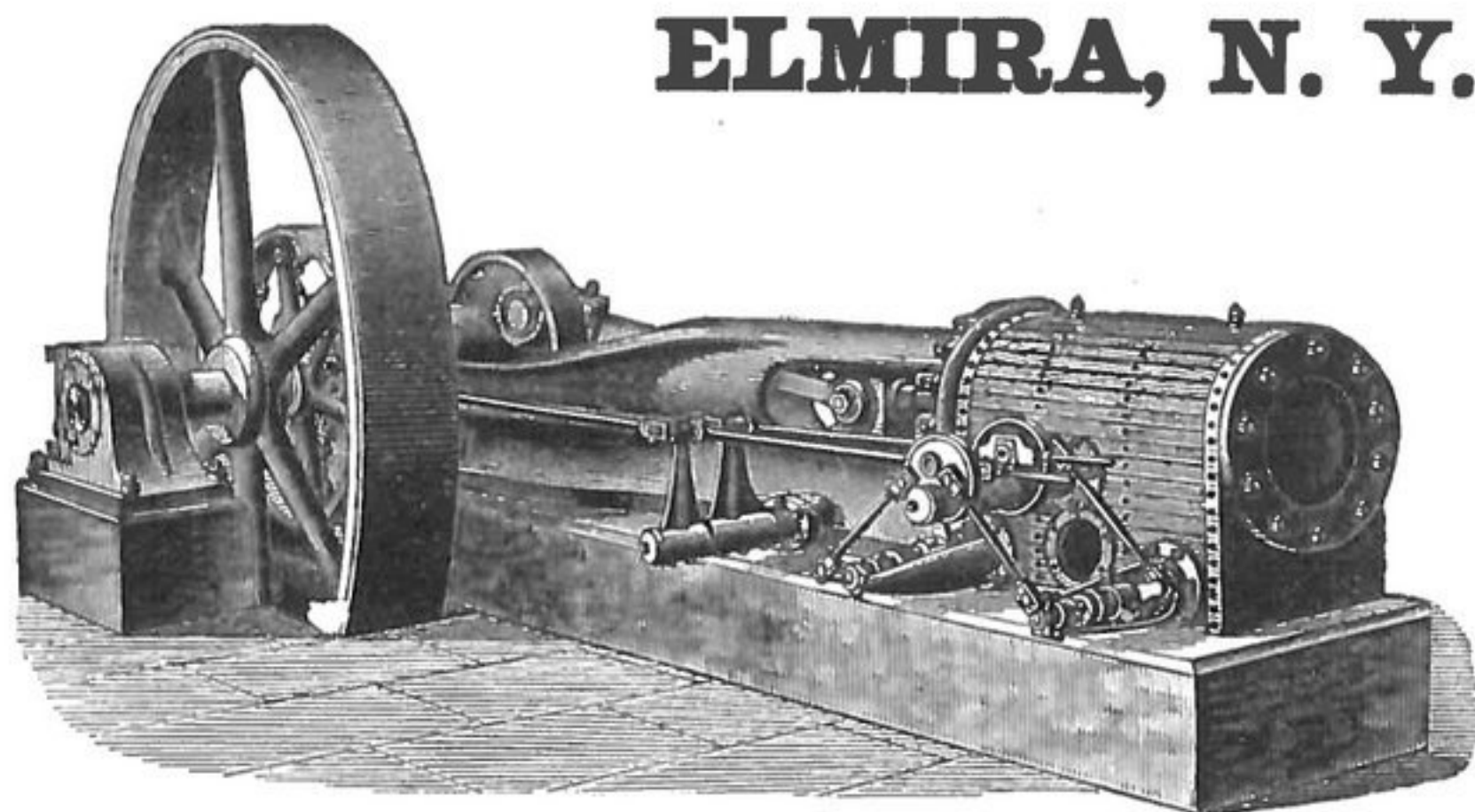
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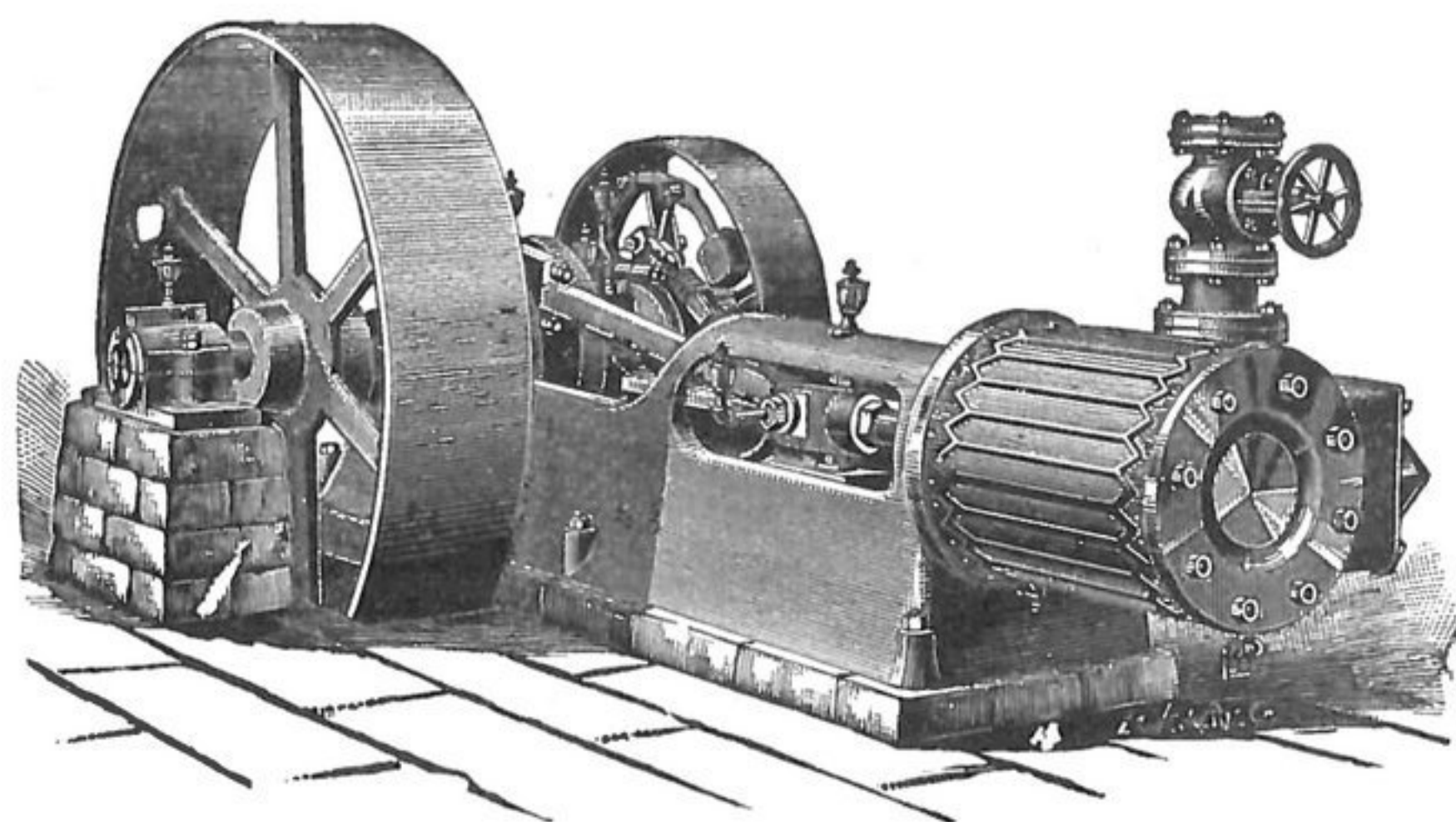
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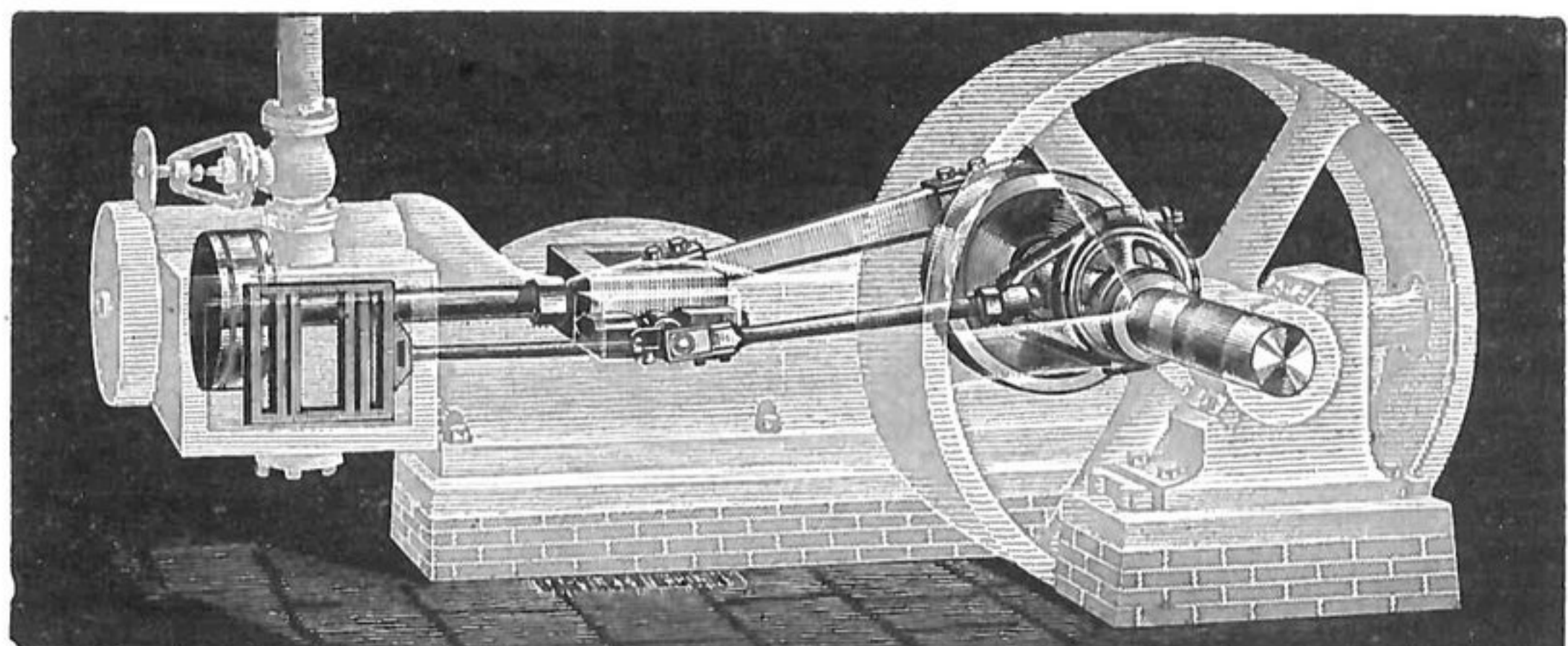
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 J. H. Butler, Whigham, Ga., is building a grist-mill.
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 The Mutchner & Higgins elevator, Indianapolis, Ind., burned; loss \$60,000.
 Foster & Borsen's elevator, Fostoria, Mich., burned; loss \$6,000; insurance \$3,500.
 Ferguson Bros.' flour-mill, Glencliff, Tenn., burned; loss \$8,000; insurance \$4,000.
 The Dawson Roll Works, Harrisburg, Pa., are shipping outfits for several new mills.
 Geo. W. Dearborn, Amherst, Va., wants information about machinery for a 50-barrel mill.
 Chas. Bullard & Co.'s flour-mill, East Aurora, N. Y., burned; loss \$6,000; insurance \$4,000.
 Grissam, Ritchie & Williams' flour-mill and other property, Burkesville, Ky., burned; loss \$20,000.
 The Millbourne Mills Co., Philadelphia, Pa., have ordered Dawson rolls with automatic centrifugal feeders.
 John Hoffer & Co., Harrisburg, Pa., have put in a Dawson roller-mill with automatic centrifugal feeders.
 L. Fox & Co.'s cracker factory and other property, Fort Wayne, Ind., burned; loss \$100,000; partially insured.
 The Dawson Roll Works, Harrisburg, Pa., have sold a 3-reduction feed-mill of 40-barrel capacity to Jas. Young, Middletown, Pa.
 Wm. Buzby, Moorestown, N. J., has equipped his 125-barrel mill with the Dawson rolls and the Dawson automatic centrifugal feeders.
 Mrs. J. R. Cook's 150-barrel flour-mill, Rochester, Minn., burned; fire incendiary; loss \$15,000; no insurance, as the mill was idle for several years.
 The Dawson Roll Works, Harrisburg, Pa., recently shipped a 50-bushel 3-reduction feed-mill for rye, with other machinery, to A. J. Dougherty's Sons, Philadelphia, Pa.
 After catching a second breath, Chicago *Daily Business* says of the Buffalo syndicate purchase of wheat in Chicago: A Buffalo dispatch quotes the sale of 600,000 bushels of hard wheat yesterday at $5\frac{1}{2}$ cents over May. That is $1\frac{1}{2}$ cents under the figure given here and probably $\frac{1}{2}$ cent over the actual price paid. Manager Harper told the writer on Monday that some of the wheat had been sold a few days previously at $4\frac{1}{2}$ cents over May and that the remainder was "held at 5c premium." The "some" referred to was probably ten cars shipped to Buffalo last week. It is extremely improbable that the buyers paid 2 cents a bushel more than the owners were holding the wheat at, which was admittedly 5 cents over May, and it is not improbable that the sale was made on a basis of 5 cents premium or fractionally under. What was the use, then, giving out the story that 7 cents premium was paid? The facts would have served equally well, and no bad taste would have been in the mouth.
 Say the Minneapolis *Market Record* of February 20: The movement of wheat in the northwest has been larger during the past week. Farmers have hauled more to the elevators, and the elevators have shipped more to Minneapolis and Duluth. The latter movement promises to hold out for some time, while the farmers' deliveries may drop off as quickly as they sprung up. There are taxes to pay in the country, and the team movement is due partly to that and partly to the desire to get a little money in hand to go through the spring seeding with. Some of the large elevator companies report the receipts for the farm equal to the shipments of their concerns to the terminal markets. On the whole, however, the country elevator stocks are declining rapidly, and a decrease of about 1,250,000 bushels is expected during the month. That will leave approximately 6,000,000 bushels in such houses in both state and territory. By taking the aggregate of wheat stocks in Minneapolis, Duluth and St. Paul, it is also declining. The country stocks in farmers' bins is an unknown quantity, but if it is approximately what conservative men call it, say 5,000,000 bushels, then the claims that wheat will be scarce here before another crop is ready to mill are well taken. There has been unusual activity in the milling demand from other states, and many of the orders have gone into hands of elevator companies and they are being filled from elevators in the country.
 Buffalo millers are evidently looking out for breakers ahead. It is announced that a syndicate of millers of this city recently made the largest

cash purchase of wheat on record. The purchase was made through the well-known firm of A. P. Wright & Son, of Buffalo. Mr. A. J. Wright, a member of that firm, said of the transaction: "We have sold 600,000 bushels of No. 2 Chicago spring wheat to a syndicate of Buffalo millers. The wheat is in Chicago and will be brought here as soon as wanted by rail. The price paid was 7 cents over Chicago May." Concerning the sale Chicago *Daily Business* of February 19 says: "The market was boomed primarily on information about the sale of 600,000 bushels of the choice hard wheat in Pacific elevators A and B. The sale was made by W. H. Harper, manager of the elevator, on behalf of the owners to A. P. Wright, avowedly for Buffalo millers. The price paid was not given, but both Messrs. Harper and Wright agreed that 'if you say 7 cents above the May price you will not be far out of the way.' The inference from this was that the purchasers bought in the holder's hedge in May at a difference of 7 cents. Mr. Wright offered $7\frac{1}{2}$ cents premium for the rest of the wheat in the elevators, about 150,000 bushels. This wheat, so the story goes, is to be shipped to Buffalo, 300,000 bushels to be loaded into boats at once, and 300,000 bushels to go by rail. The wheat in question is very choice grain, and which would grade about No. 1 northern, if there were such a grade here."

Says an exchange: This is how coercion is proposed for the millers in the winter-wheat district according to what was overheard by a St. Louis Intelligence dreamer: Michigan—"What do you mean by coercive measures, etc?" Ohio—"I will take two extreme cases for example. Suppose that the Evansville, Ind., members complained that a mill on the river, at Madison, for instance, was either offering to the trade direct or was selling to the jobbers at such prices that they were offering to the trade at less than association prices. If the Madison miller was not a member I would endeavor to get him into the association, and I would notify him what our prices at Evansville were and ask him to maintain them; but if he would not join nor sell at agreed prices, I should put a wheat-buyer in his market and run up the prices to such a point that he could not undersell us. If the mill was located in a section where there was no local wheat grown, Columbus, Ga., for instance, the same tactics would be employed at first, and if coercion became necessary, I would black-list that mill, either by black-listing any grain-dealer who sold wheat to it, or in some other way equally effective. I would require every member to give ten forfeit notes in the shape of negotiable acceptances, and I would make them payable either to the president or to the association, and I would require the executive committee to demand payment of one of said notes for each violation, the offending member having the right of appeal to the full board of directors. A black list! That would be the principal part of the duties of the officers,—investigating customers who were not fulfilling their engagements, etc."

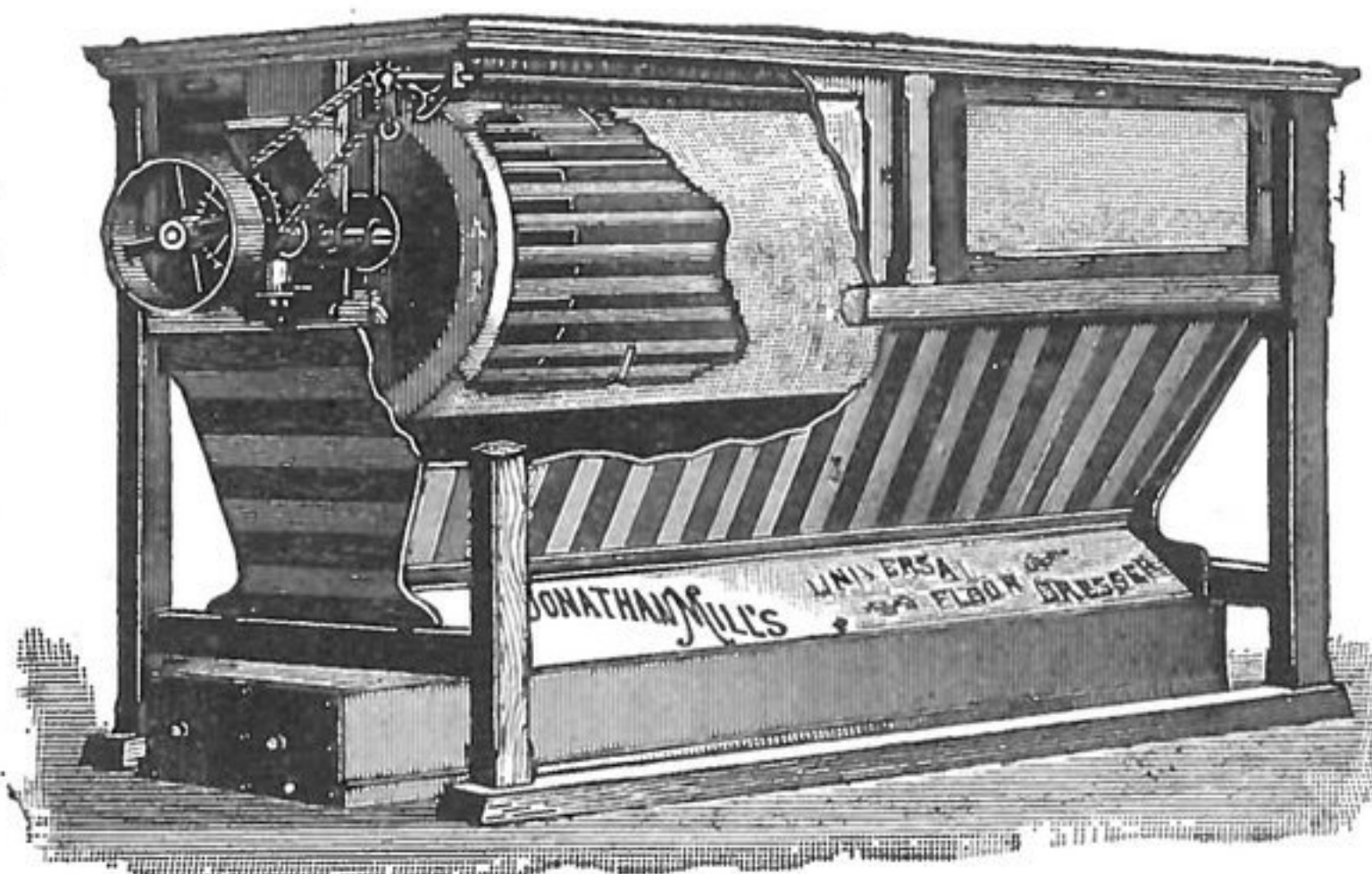
Chicago's wide-awake *Daily Business* has "Respectfully Submitted" the following interesting utterance: For the first seven months of the fiscal year ending June 30, 1889, the export of wheat and its product flour amounted to nearly 75 per cent. of the exports for the corresponding period last year. If the proportion should be reduced during the remaining five months to 60 per cent. of the exports for the corresponding five months of last year, the quantity shipped would be about 22,000,000 bushels; if 50 per cent. 18,500,000 bushels. In the first case the total exports for the year would approximate 79,000,000 bushels; in the second 75,000,000 bushels. Last year out of a crop of 456,000,000 measured and 445,000,000 60-pound bushels there was left in the visible supply July 23, about 21,680,000 bushels. The crop of 1888 is estimated at 415,000,000 measured bushels or 41,000,000 bushels less than 1887, and the deficiency in weight extends this shortage to at least 55,000,000 bushels, estimating the last crop at 390,000,000 60-pound bushels. Assuming that the exports for the fiscal year will amount to 75,000,000 bushels, an inside estimate, we have still about 15,000,000 bushels less to go on for the last five months of the years than we had for the corresponding period last year. In the above calculation no allowance is made on the one hand for a possible decreased consumption by reason of the higher prices, nor on the other hand for the increased quantity required for seed. Judging from the present outlook there is a likelihood that the visible supply will this year be reduced to a point considerably under last year's low-water point, unless extraordinarily fancy prices should drain the country of its reserves. It is fortunate that the foreigners are in a large measure independent of America; otherwise bread would be out of the reach of the "po' man." Speculation may push prices to an unwarrantable limit, but the greatest good to the greatest number of American stomachs and pocket-books would seem to call for the maintenance of prices just above an apparent export shipping basis. This would allow the escape of a little wheat and flour under special conditions and on special terms.

BOOKS AND PAMPHLETS.

We have received from the Board of trade of the city of Toronto, Ontario, Canada, a copy of their "annual report" for 1888, a copy of the paper entitled "Canada, the West Indies and British Guiana" read by Hon. John Macdonald before the Board of Trade on January 18, 1889, and a copy of that most interesting and attractive publication known as "Johnson's Graphic Statistics of Canada." Toronto makes a fine commercial showing and in every way justifies the claim that she is the crown city of the Dominion. The "Graphic Statistics" must be seen to be appreciated. The volume is a decidedly interesting departure from the ordinary methods of presenting statistics. All the publications mentioned are worthy of the booming city of Toronto.

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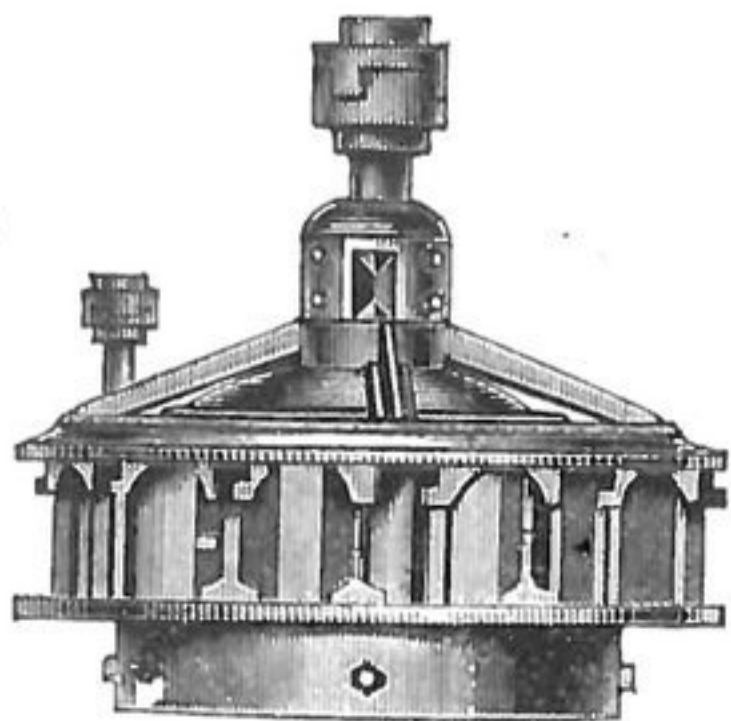
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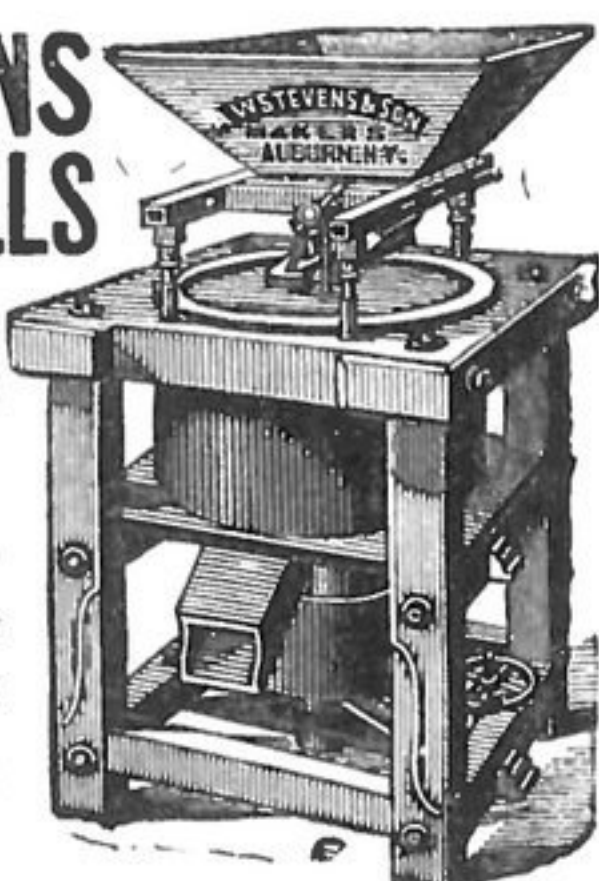
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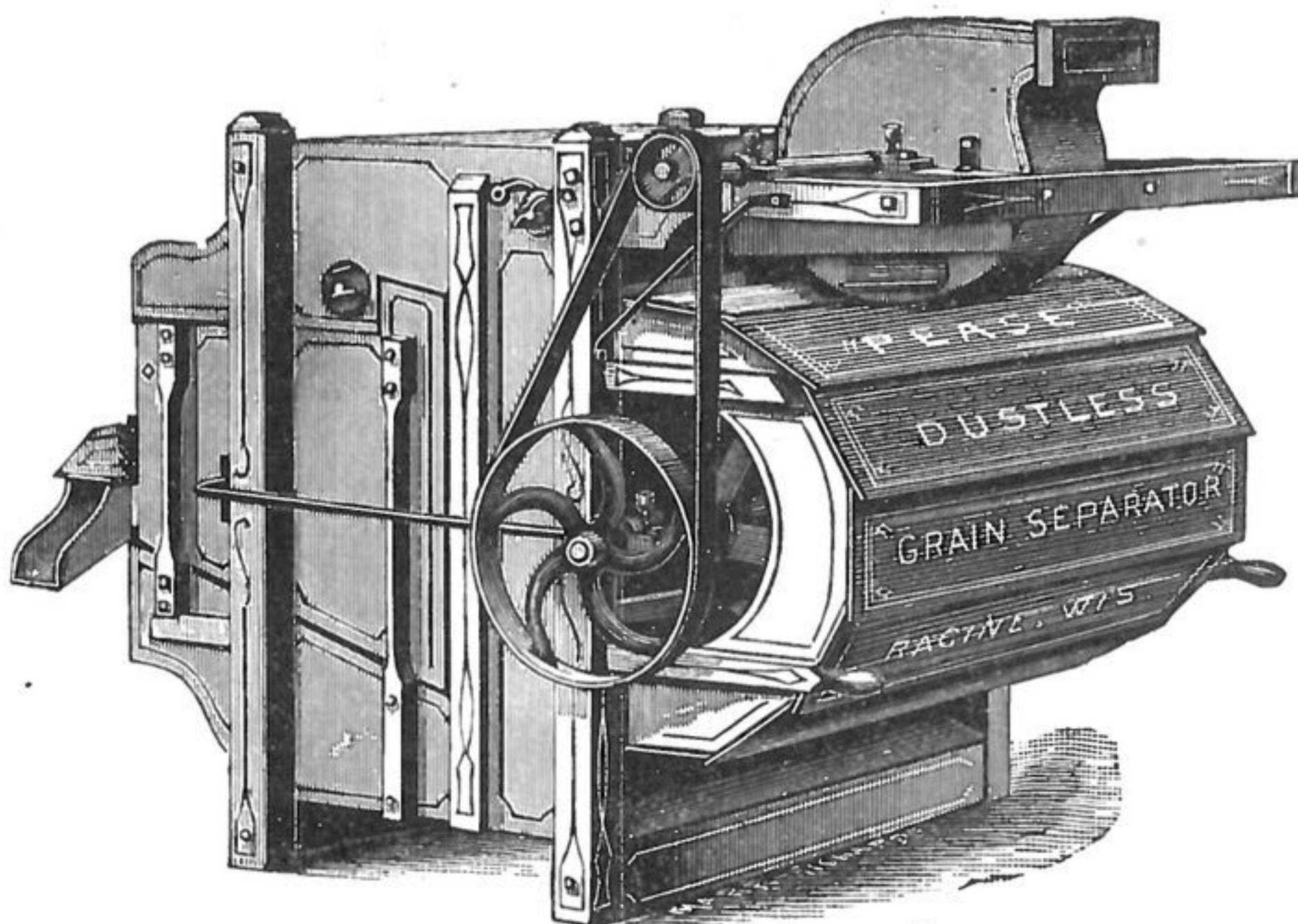
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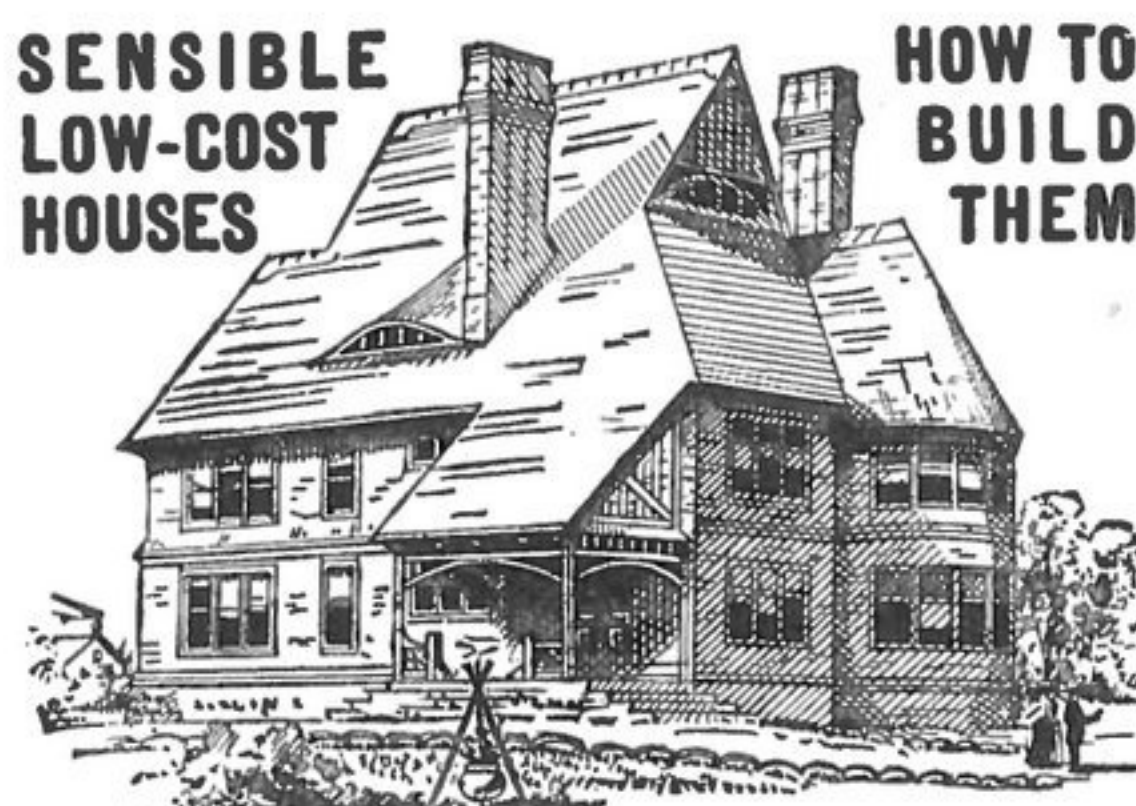
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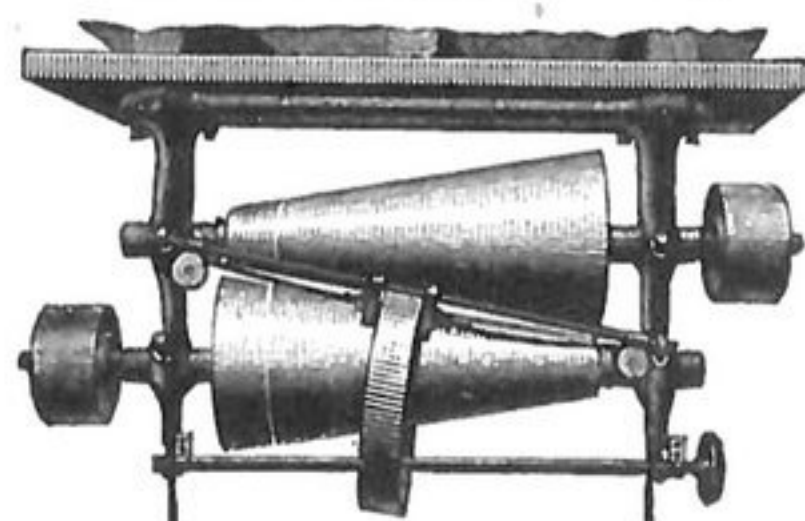
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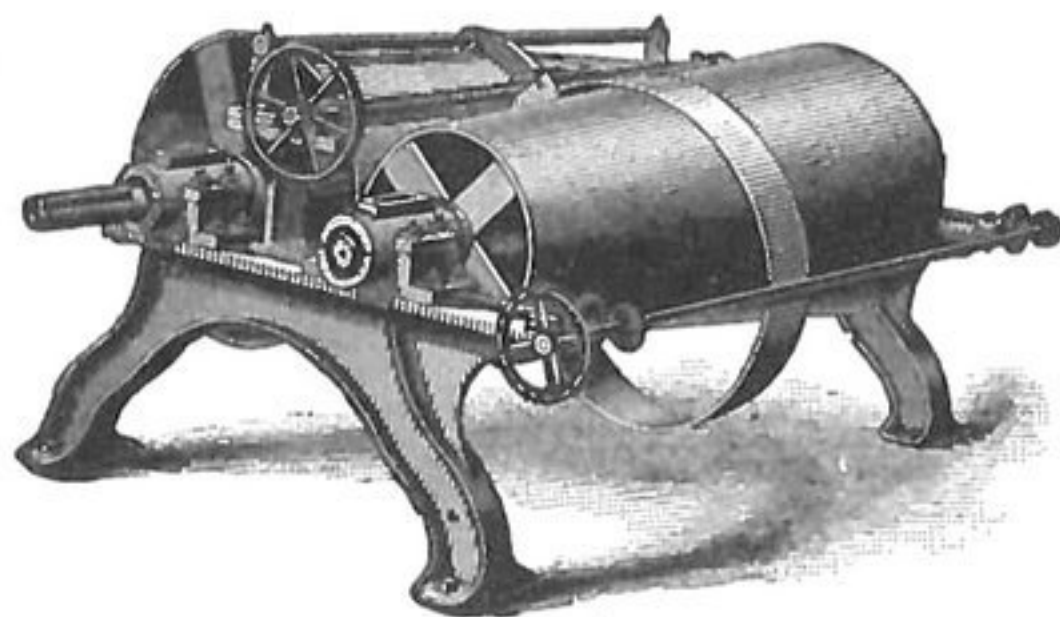
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EUROPEAN ECHOES.

It is stated, probably without authority, that France, with a population of 38,000,000, uses as much wheat bread as the United States with 63,000,000.

"THE value of the American maize crop," observes the London Mark Lane Express, "is something astonishing. To the two crops of 1887 and 1888 an aggregate monetary value of £268,000,000 is assigned. With this wonderful annual accretion of agricultural wealth it is no longer surprising that the United States are paying off their national debt at the rate of £30,000,000 a year, or that a high mean standard of prosperity continues to be supported, notwithstanding protective tariffs which would drive Englishmen to the verge of revolt."

THE depreciation of the Indian silver rupee and its effect on British and Indian wheat competition are discussed by Mr. Chaplin as follows: The rupee in India, which was formerly worth 2s, has now as a matter of fact fallen in value to very nearly 1s 4d, and the fall has led to all the differences of exchange by which their interests were so seriously affected in the wheat-growing industry. However much the rupee of India has fallen in value in relation to gold, in relation to wheat and other commodities in India it has not fallen at all. In other words, what had happened was this, that the same number of rupees would no longer exchange for the same amount of gold as formerly, but would exchange for, or, in other words, would buy, as much of any commodity or commodities in India as they ever bought before. What was the relative position of the English and the Indian grower at the present time? Under the influence of exchange the Indian grower was realizing just the same amount as he ever realized before, while the English grower, on the other hand, was getting less by half a sovereign on every single quarter that he sold. It must be obvious, therefore, that the Indian grower was cultivating wheat at the present time under an enormous advantage as compared with his competitor in this country. He was enabled by this fall in the exchange to take the lower price of £1 10s per quarter instead of £2 without any loss whatever to himself; in this way he was enabled to undersell them and his rivals in all other parts of the world, and not unnaturally he depressed the market price of wheat in England and the gold-using countries of the world.

FOLLOWING is a European summary of the crop conditions in wheat-growing countries: In Germany crop prospects are reported as favorable so far. In the central and eastern sections there have been heavy falls of snow, affording protection to the growing crops, while in southwestern Germany heavy rains and floods are reported. Mail reports from South Australia up to Dec. 17 say that the wheat crop is very poor and will probably not exceed 3½ or 4 bushels per acre, giving about 100,000 tons for export, which will be absorbed by the intercolonial demand. Victoria's wheat crop is reported to be turning out much better than was expected, the latest reports estimating the average yield at 8 bushels per acre. The grain is dry and as a rule well filled, but short in straw. With old stocks carried over, the exportable surplus is believed to be 50,000 tons, much of which will be required for New South Wales and Queensland, for which colonies there was a brisk demand. No engagements had been made for new crop shipments to Europe, local prices, though 15 cents a bushel lower, being still above export level. Of the Australian colonies, only three are exporters of wheat, namely South Australia, Victoria and New Zealand, ranking in the order named. The other four colonies, New South Wales, West Australia, Tasmania and Queensland, are importers to a greater or lesser extent, and it is only after providing for the wants of these importing colonies, which will be larger this year than usual, owing to the drought, that any surplus from the exporting colonies can be spared for Europe. It is too early for definite in-

formation regarding the crop just harvested, but it will doubtless be largely deficient and little of it will find its way to Europe. Further additional reports on the prospects of the Indian wheat crop up to December summarize as follows: The Punjab—Estimated wheat area 6,046,200 acres, or 2½ per cent. less than harvested last year. Condition excellent. [In 1887-8, area 6,179,800 acres; outturn 1,668,506 tons.] Northwest Provinces and Oudh.—Area a little larger than last year. Rains heavy, but ceased too early. Prospects on the whole rather low. [In 1887-8 area 4,052,354 acres, outturn 1,907,000 tons.] Central Provinces.—Conditions follow closely the very irregular and unequal rainfall last autumn. In large districts the crop will be very poor. [In 1887-8 area was 4,601,683 acres and outturn 1,138,800 tons.] The poor condition and prospects of the growing crop are reflected in prices, which in some markets are 12 annas a maund or 27 cents a bushel higher than last year, while in others prices are unchanged. Prospects are therefore more or less unfavorable in four important districts, comprising fully half of the area and producing more than half of the total wheat crop of India.

FOLLOWING is a tabular statement of the imports of wheat, flour, barley and other foods into the United Kingdom during the past three years, compiled by the London "Miller:"

		Year ended 31st December.		
Wheat—		1886.	1887.	1888.
From Russia.....	Cwts.	3,710,099	5,522,773	21,368,793
" Germany.....	"	1,318,053	1,551,738	3,264,815
" France.....	"	2,560	70,980	20,235
" Turkey.....	"	218,626	1,989	182,441
" Roumania.....	"	290,248	585,353	1,419,079
" Egypt.....	"	40,632	197,787	729,781
United States:				
On the Atlantic.....	"	13,531,346	20,537,419	6,224,040
On the Pacific.....	"	11,089,882	9,967,107	8,423,155
" Chili.....	"	1,701,695	2,206,272	1,485,710
" British East Indies..	"	11,028,665	6,500,095	8,188,698
" Australasia.....	"	738,699	1,347,151	2,315,700
" British N. America..	"	3,080,964	3,964,784	1,089,080
" Other Countries.....	"	622,875	1,322,237	2,513,407
Total.....	"	47,404,344	55,784,685	17,224,934
Wheat Meal and Flour—				
From Germany.....	Cwts.	816,737	588,876	1,109,179
" France.....	"	114,594	197,620	101,804
" Austrian Territories.	"	1,362,285	1,390,605	1,046,038
" United States.....	"	11,473,192	14,873,443	12,557,096
" British N. America..	"	770,530	958,873	785,163
" Other Countries.....	"	201,894	147,128	413,433
Total.....	"	14,739,232	18,056,545	56,912,773
Barley.....	Cwts.	13,722,609	14,277,180	21,277,774
Oats.....	"	13,495,190	14,468,733	18,737,436
Peas.....	"	2,047,153	2,990,296	2,420,847
Beans.....	"	2,804,332	2,477,293	3,010,144
Indian Corn or Maize.....	"	30,998,278	31,123,401	25,338,551
Indian Corn Meal.....	"	10,264	5,522	14,846

MILLING PATENTS.

Among the patents granted February 19, 1889, are the following:

Daniel G. Reitz, Berlin, Pa., No. 397,937, a bolting-reel.

John L. Sheppard, Charleston, S. C., No. 397,944, a process of milling rice.

John H. Gilman, Ottawa, Ill., No. 398,146, a corn-sheller.

Jonathan D. Mahwood, Richmond, Ind., No. 398,339, a roller-mill.

ANNOUNCEMENT is made by way of Budapest, Austria-Hungary, that "the wheat-crop of 1888 was an utter failure in the Western States of the American Union." There is nothing like having the news, from whatever distance and in whatever shape it may come, but will our Austro-Hungarian friends be kind enough to let us know where under this cerulean firmament the United States produced 415,000,000 bushels of wheat in 1888 if the Western States failed utterly to contribute to that total? We merely ask for information.



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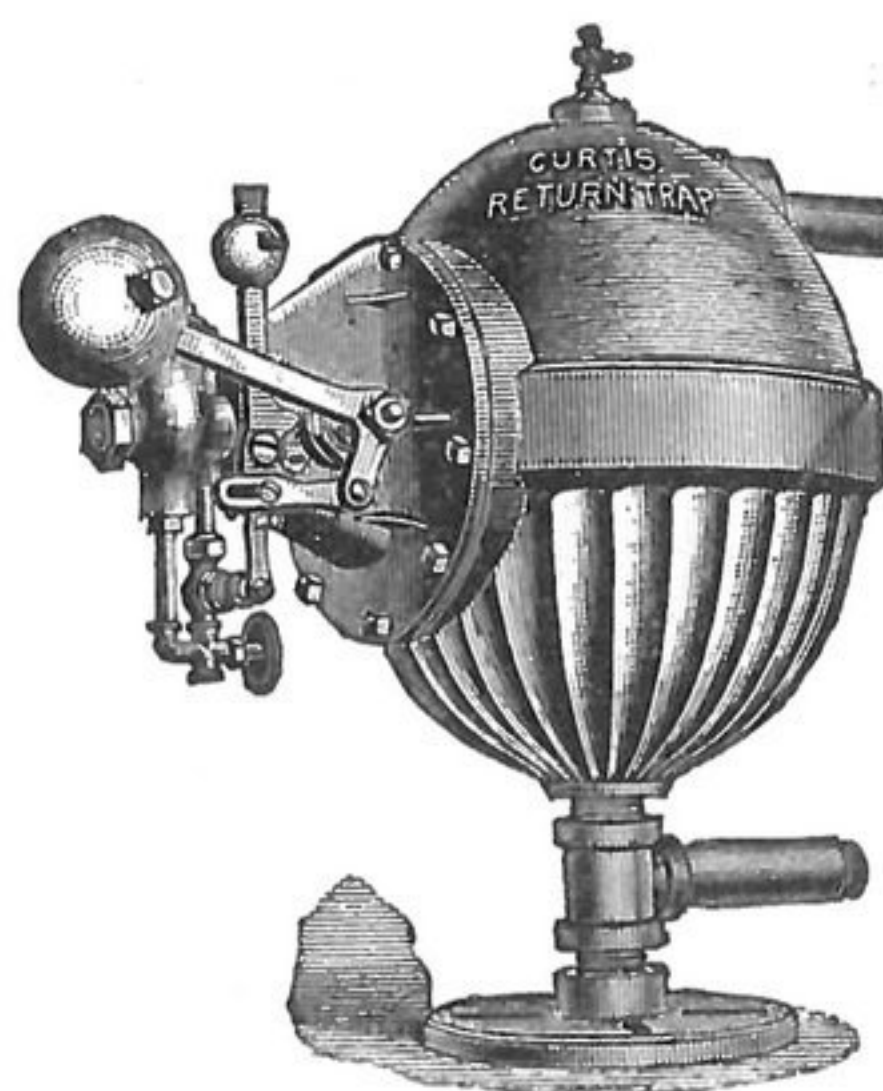
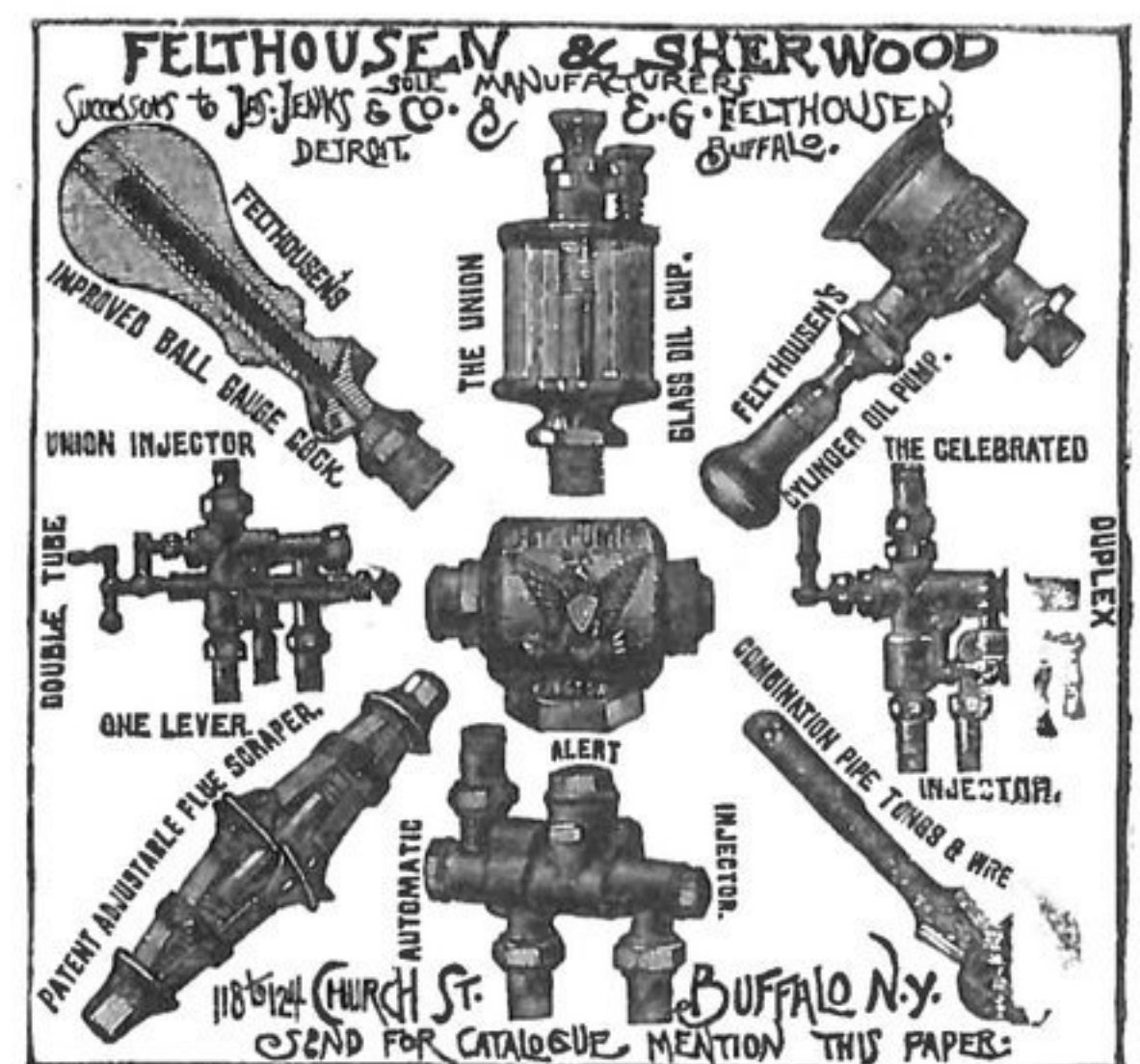
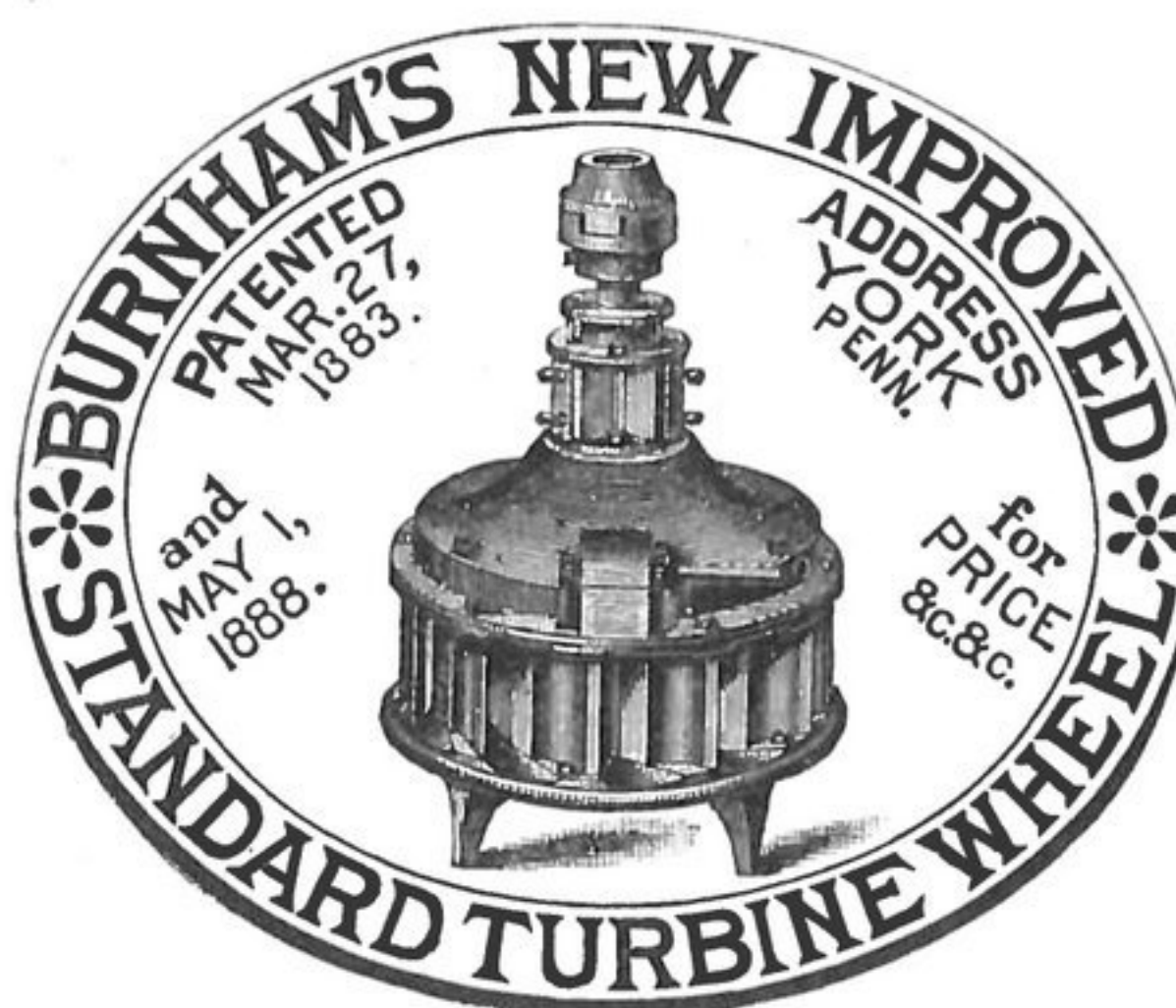
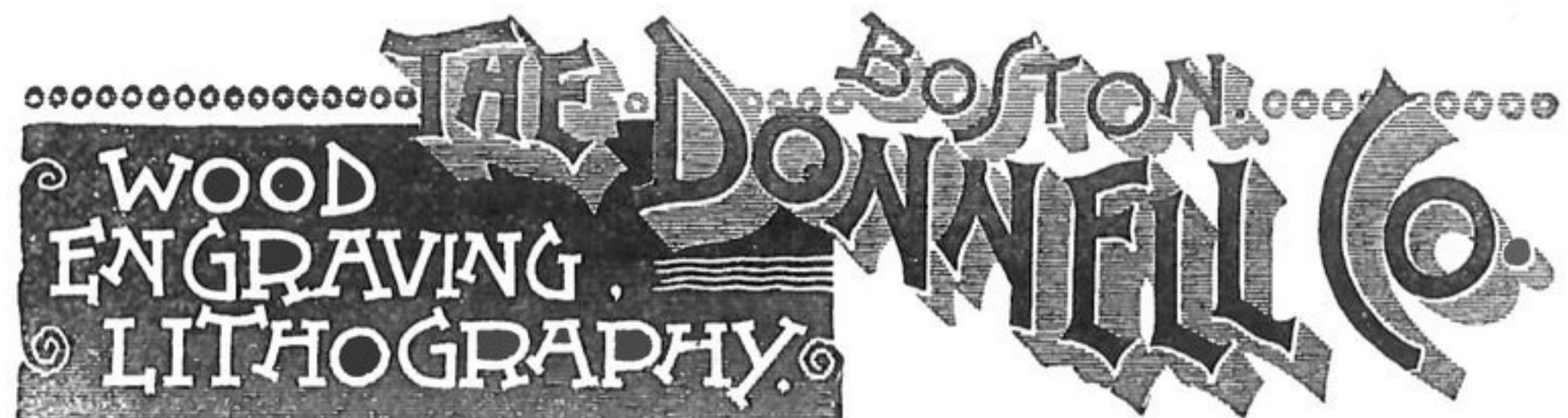
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THE Grain & Flour Trade

OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., February 23, 1889.

On Friday of last week the markets were active and irregular. Wheat was higher. In New York February wheat closed at 97c., March at 98c., May at \$1.00½ and June at \$1.00½. In Chicago February wheat closed at \$1.04½, May at \$1.07½ and June at \$1.04. Options in New York 2,400,000 bushels. February corn closed at 43¾c. and oats at 30¾c. Wheat flour was dull for every grade. The minor lines were quiet and featureless.

Saturday was a day of excitement in wheat. In New York February wheat closed at 99c., March at \$1, April at \$1.01½, and May at \$1.02½. Options 1,600,000 bushels. In Chicago February wheat closed at \$1.07, May at \$1.11 and June at \$1.05½. February corn ruled at 43¾c. and oats at 30¾c. Wheat flour was dull but firm, with occasional export orders, and with the jobbers waiting for a break in wheat. The minor lines were featureless.

Monday was a day of dullness all around. February wheat closed at 97¾c. and May at \$1.00½. Options 3,250,000 bushels in New York. In Chicago February wheat closed at \$1.06½, March at \$1.07½ and May at \$1.09½. In New York February corn ruled at 43¾c. and oats at 30¾c. Wheat flour was held firmly at the late advance, with no pressure to sell, and with no weak spots apparent. Buyers held back, except city jobbers, who took spring patents freely and winter straights quite freely. The minor lines were featureless and quiet.

On Tuesday the wheat market was again higher. In New York February wheat closed at 97¾c. and May at \$1.01½. Options 1,500,000 bushels. In Chicago February wheat closed at \$1.08½, March at \$1.09½ and May at \$1.11½. February corn ruled at 44¼c. and oats at 30¾c. Wheat flour was firm and in good demand for all grades above \$4.50 on winters and \$5.50 on springs for the home trade. Millers' limits were advanced on some grades. For the lower grades there was small demand. The minor lines were featureless.

The visible supply in the United States and Canada was:

	1889.	1888.	1887.
	Feb. 16.	Feb. 18.	Feb. 19.
Wheat.....	33,435,466	39,564,709	59,886,568
Corn.....	14,588,495	8,234,494	16,569,794
Oats.....	8,155,103	4,953,602	4,871,405
Rye.....	1,712,733	367,016	445,345
Barley.....	2,162,159	2,737,523	2,097,707

Wednesday was a day of dull and steady markets with a somewhat unsettled closing. In New York February wheat closed at 98¾c. and May and June at \$1.01½. Options 1,000,000 bushels. In Chicago February closed at \$1.06½, March at \$1.07½ and May at \$1.09½. In New York February corn closed at 44c. and oats at 30¾c. Wheat flour was steady, unchanged and in fair export demand for the United Kingdom, which took 6,000 sacks of spring Nos. 1 and 2. The home and West India trade was also better. None of the other lines showed important changes.

On Thursday wheat was dull and lower on western increase of receipts, although reports from California indicated drouth. In New York February closed at 98¾c. April at \$1, and May and June at \$1.01½. Options 1,250,000 bushels. In Chicago February closed at \$1.06½, March at \$1.07½, May at \$1.09½, and June at \$1.04½. Trade was light. In New York February corn closed at 44c., with 3,250,000 bushels options sold, and oats at 30¾c. Buckwheat grain was 52c. asked and 50c. bid. Rye grain was nominal. Barley was dull at the following quotations: 2-rowed State 70@73c.; 6-rowed 72@75c.; extra No. 2 Canada 75@77c.; No. 1 80c.; ungraded 75@80c. for the whole

range; all these prices were nominal. Malt was steady and nominal at \$1.07@1.10 for city, \$1.00@1.05 for country, 95c. @ \$1 for 6-rowed and 90c. for 2-rowed asked. Mill-feed was higher at the following quotations: 40, 60 and 80-lb, 70@72½c; 100-lb, 85c; sharps, 85@95c; 80c for rye; screenings, 50@80c; oil meal, \$1.45@1.50; cotton meal, \$1.25@1.28; barley meal, 90c.

Wheat flour was less active, as buyers had supplied their immediate wants and were awaiting developments. Following are the quotations:

	Sacks.	Barrels.
SPRING FLOUR.		
No grade.....	\$2.00@2.25	\$....@....
Fine.....	2.25@2.50	2.60@2.90
Superfine.....	2.75@3.20	3.30@3.45
Extra No. 2.....	3.40@3.55	3.55@3.75
Extra No. 1.....	3.80@4.50	3.90@4.50
Clear.....	4.00@4.90	4.65@5.15
Straight.....	5.40@5.90	5.90@6.15
Patent.....	6.00@6.65	6.50@7.05

	Sacks.	Barrels.
WINTER FLOUR.		
No grade.....	\$2.90@2.25	\$....@....
Fine.....	2.60@2.85	2.80@3.00
Superfine.....	3.25@3.40	3.35@3.50
Extra No. 2.....	3.40@3.55	3.70@3.90
Extra No. 1.....	3.80@4.90	5.15@5.65
Clear.....	4.35@4.75	4.65@5.05
Straight.....	5.15@5.35	5.15@5.75
Patent.....	5.40@5.75	5.55@6.40

CITY MILLS.	
W. I. grades.....	\$5.25@5.40
Low grades.....	2.45@2.85
Patents.....	6.15@6.85

Rye flour was quiet and in small trading at \$3.00@3.10. Buckwheat flour was dull at \$1.90 @2.00, with small sales. Corn products were quiet at the following quotations: Coarse, 80@85c for the whole range; \$1.00 for yellow and \$1.08 for white city; Brandywine and Sagamore, \$2.90; Southern and Western, 2.75@2.85; coarse meal, 80@85c; fine yellow, 98c@1.00; fine white, \$1.00@1.05; Southern, 80c@1.20 for coarse and fine in bags; grits, \$2.50@2.60.

BUFFALO MARKETS.

FLOUR—City ground—Patent spring, \$7.25@7.50; straight Duluth spring, \$6.50@6.75; bakers' spring, best, \$6.00@6.25; do rye mixture \$5.25@5.50; patent winter \$7.00@7.25; straight winter \$5.75@6.00; clear winter \$5.50@5.77; cracker \$5.50@5.75; graham \$5.50 @5.75; low grade \$3.00@4.25; rye 3.50@3.75 per bbl; buckwheat \$2.50 per cwt. OATMEAL—Akron \$6.00; Western \$5.75 per bbl; rolled oats in cases, 72 lbs, \$3.25. CORNMEAL—Coarse, 80c.; fine 85c.; granulated \$1.50 per cwt. WHEAT—Chicago May opened at \$1.09½, highest \$1.10½, lowest \$1.08½, and closed at \$1.09½. Old No. 1 hard 80c. new No. 1 hard 23c. No. 1 Northern 13@14c. No. 2 Northern 8@9c. No. 2 spring 5c over Chicago May. Hard wheat irregular with a fair demand; sales 2,000 bu and 1 carload old No. 1 at \$1.39½, 4 carloads do at \$1.40, 1 do do at \$1.40½, and 2 do No. 1 Northern at \$1.23½; o'd No. 1 hard closed at \$1.39½, new at \$1.32½, No. 1 Northern at \$1.23½. No. 2 do at \$1.17½@1.18½, No. 2 spring at \$1.14½. Winter wheat irregular and in moderate demand; sales 1 carload No. 2 red at \$1.07, 2 do do at \$1.07½@1.07½, 1 do do at \$1.08½, 1 do No. 3 red at 92½c, 1 do No. 1 white at \$1.09, 1 do do at \$1.09½, and 1 do do at \$1.10, market closing easy and generally at inside prices. CORN—About steady with a fair demand; sales 2 carloads No. 3 at 86c, 11 do do at 86½c. 1 do No. 3 white at 86½c, 4 do No. 3 yellow at 86½c, and 2 do No. 4 do at 83½c. OATS—Quiet and weak; sales 4 carloads No. 2 white at 31½c, and 2 do No. 3 white at 29 29¼@29 9½c. BARLEY—Regular dealers are asking former quotations; No. 1 Canadian. 75c. No. 2@70c. No. 2 extra 67@68c; No. 3 60@53. RYE—No. 2 Western offered at 54c; no inquiry. RAILROAD FREIGHTS.—To New York, Baltimore and Philadelphia rate points on grain flour, and feed, 13c. per 100 lbs; to Albany and West Troy, 10½c; and to Boston, 15c.

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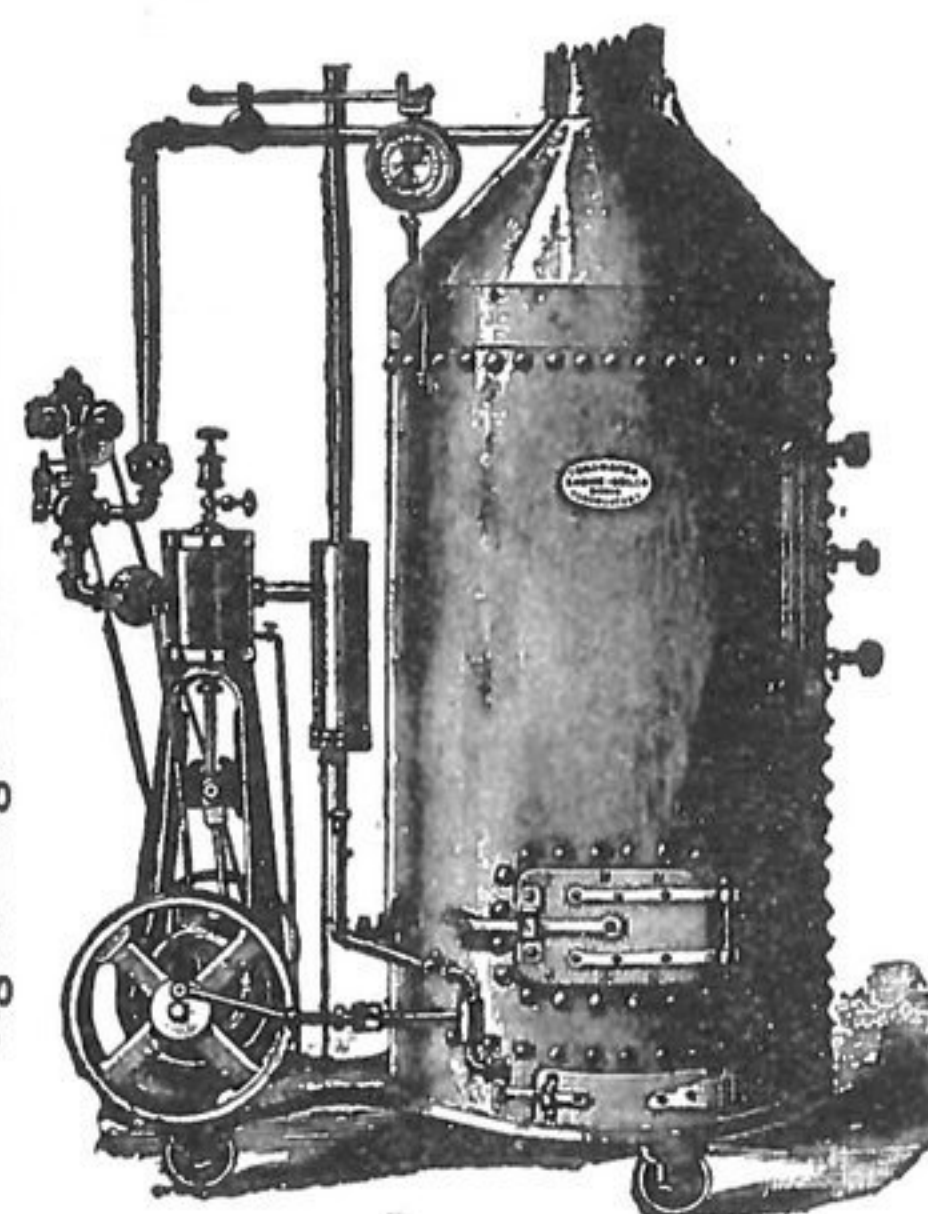
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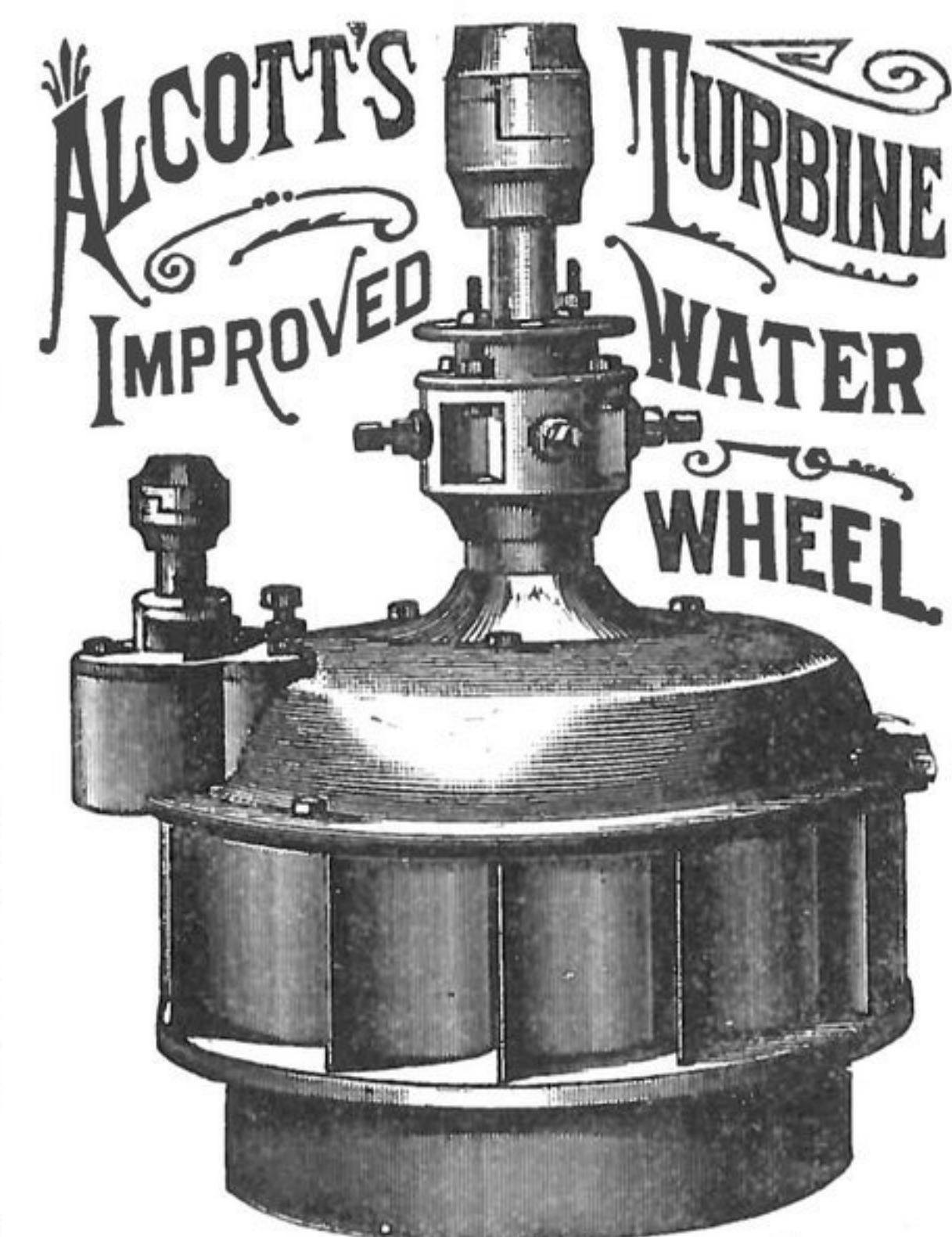
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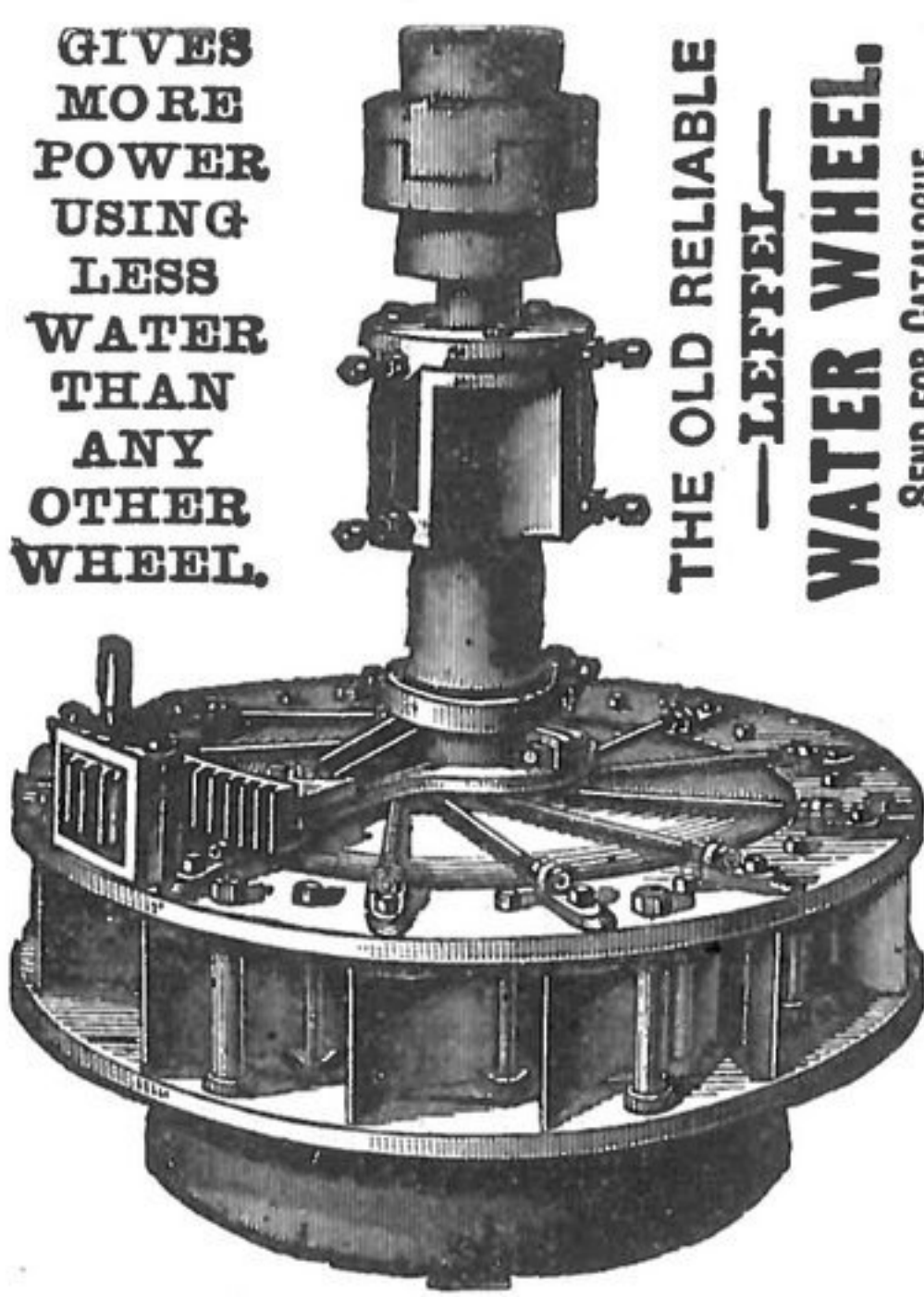
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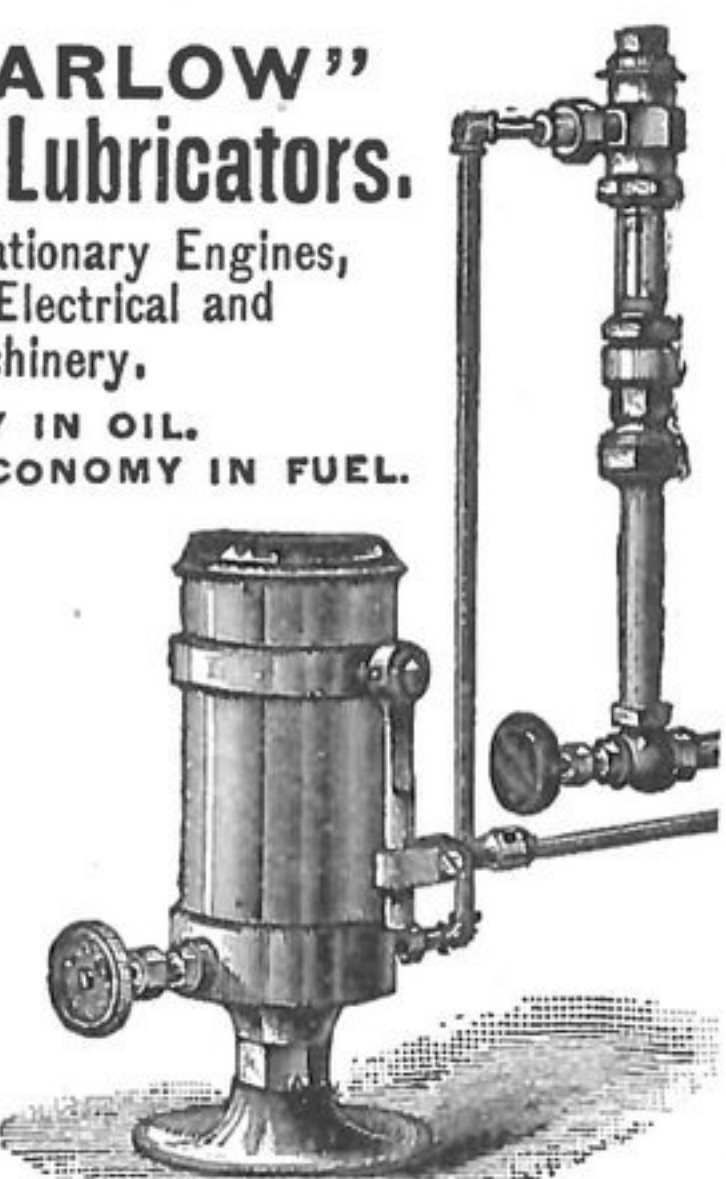
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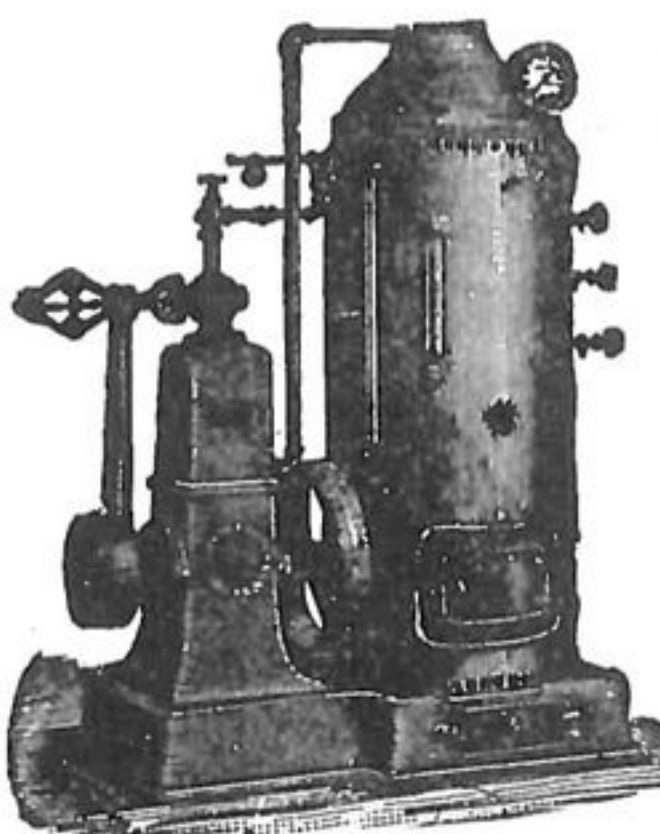
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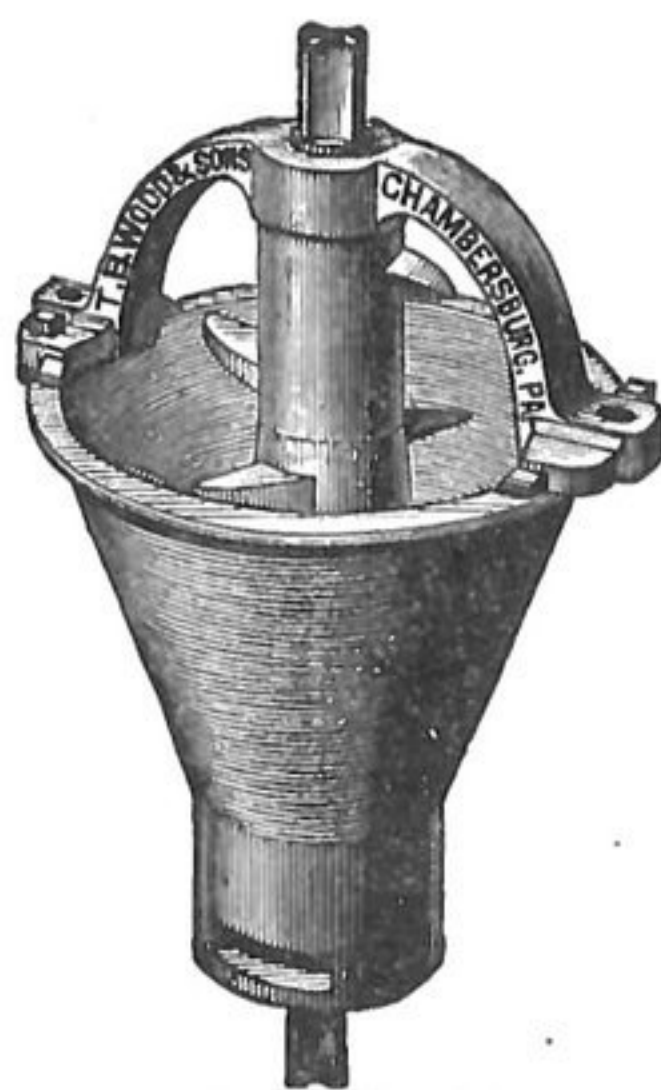
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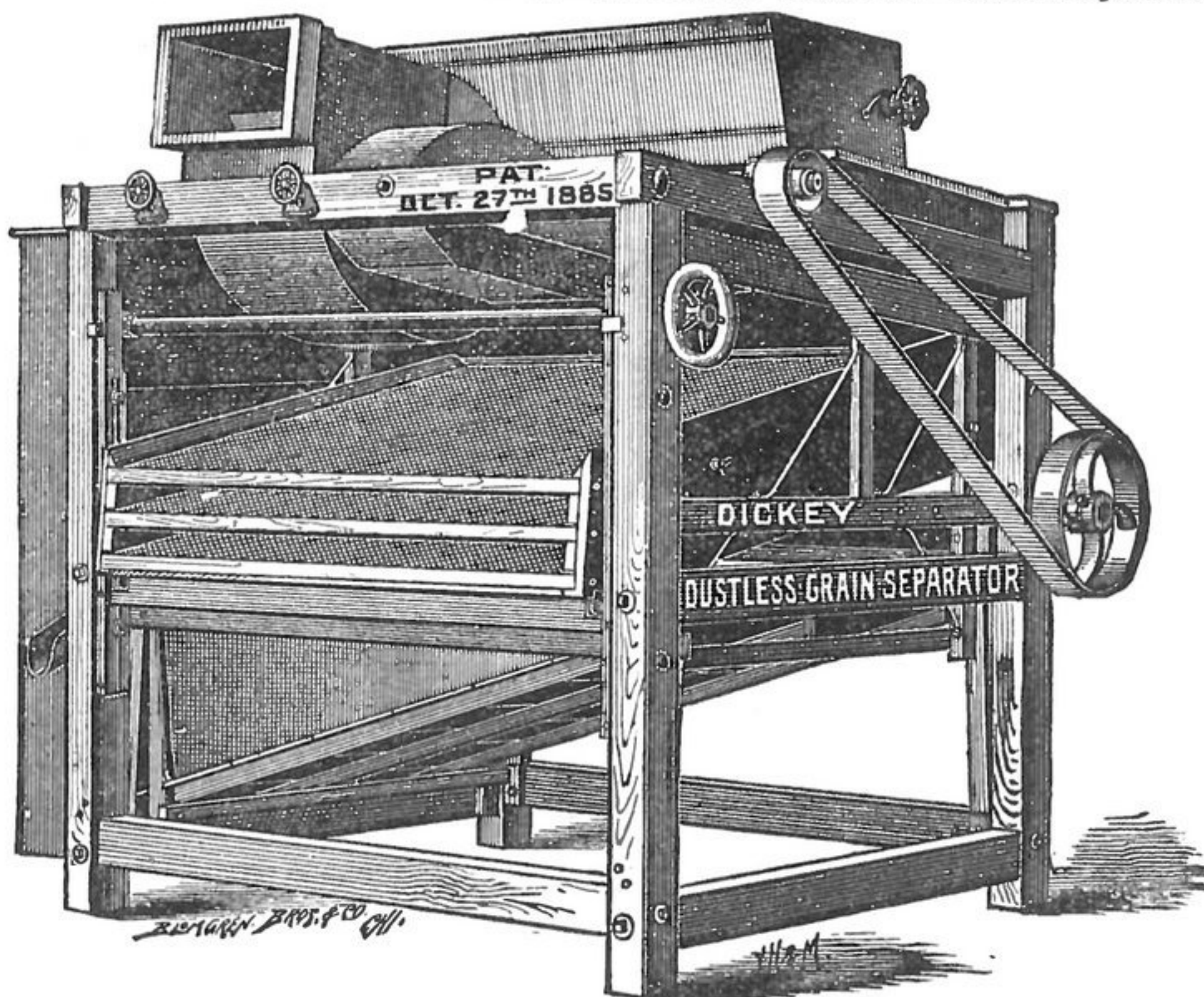
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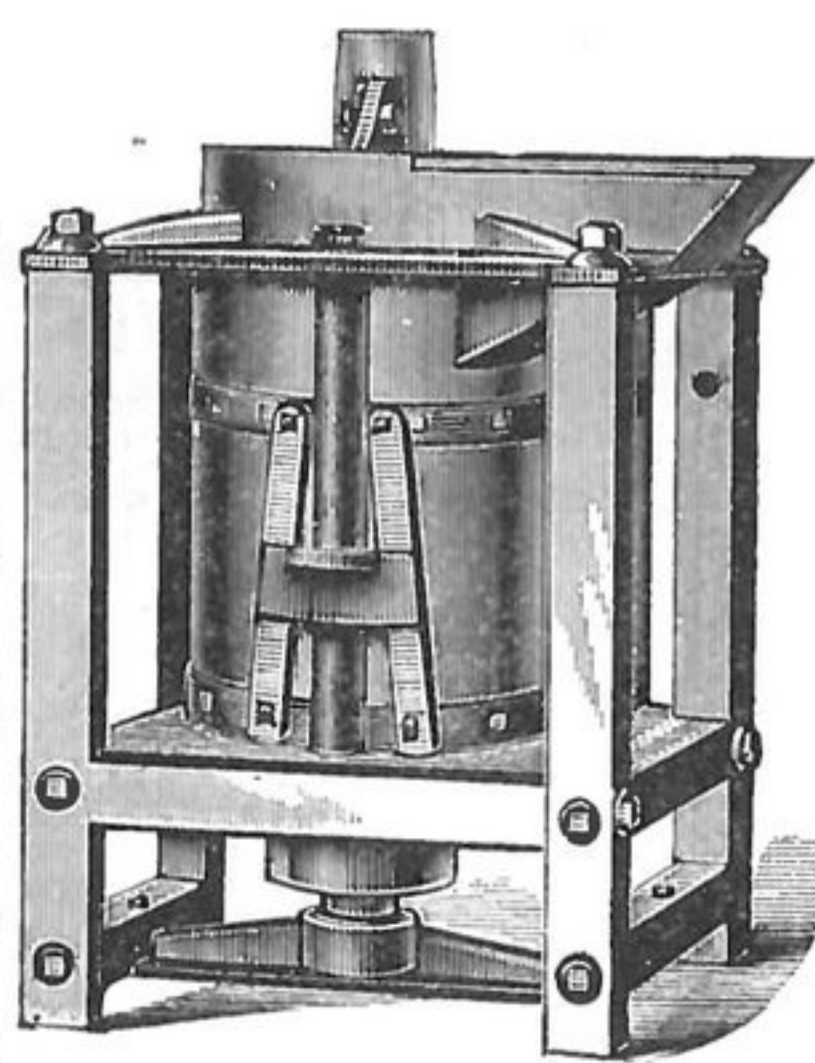
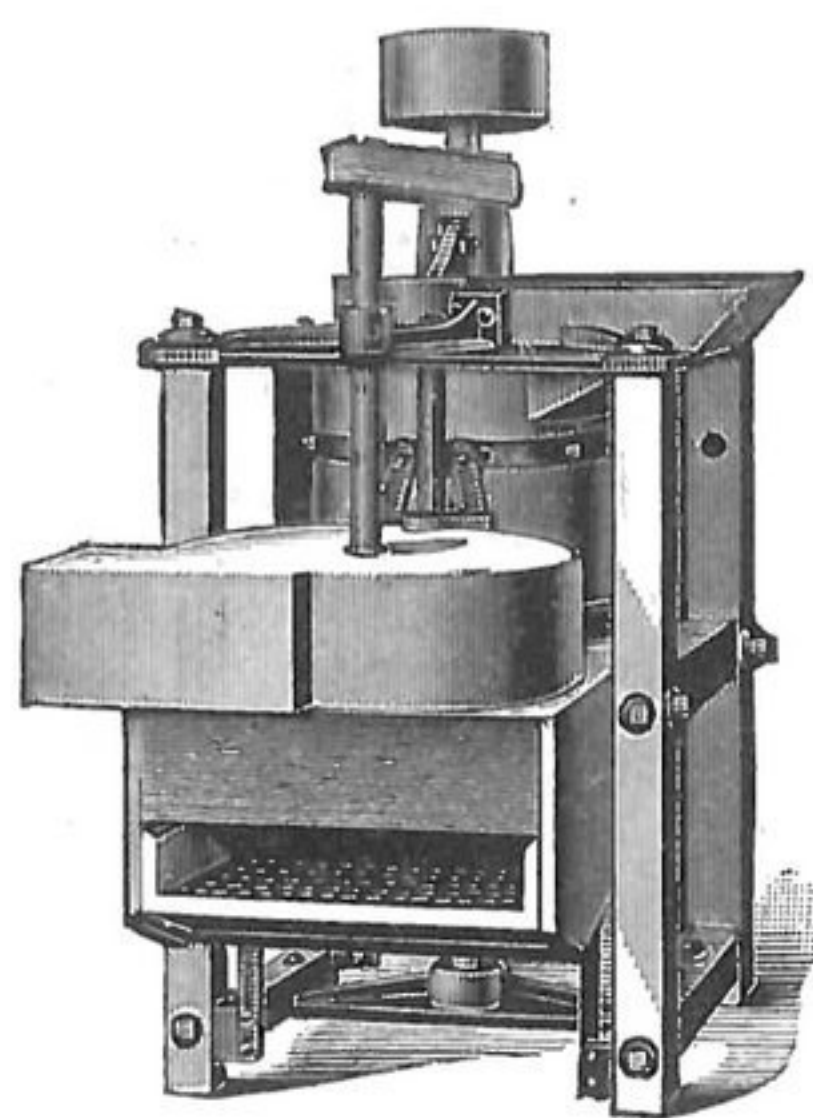
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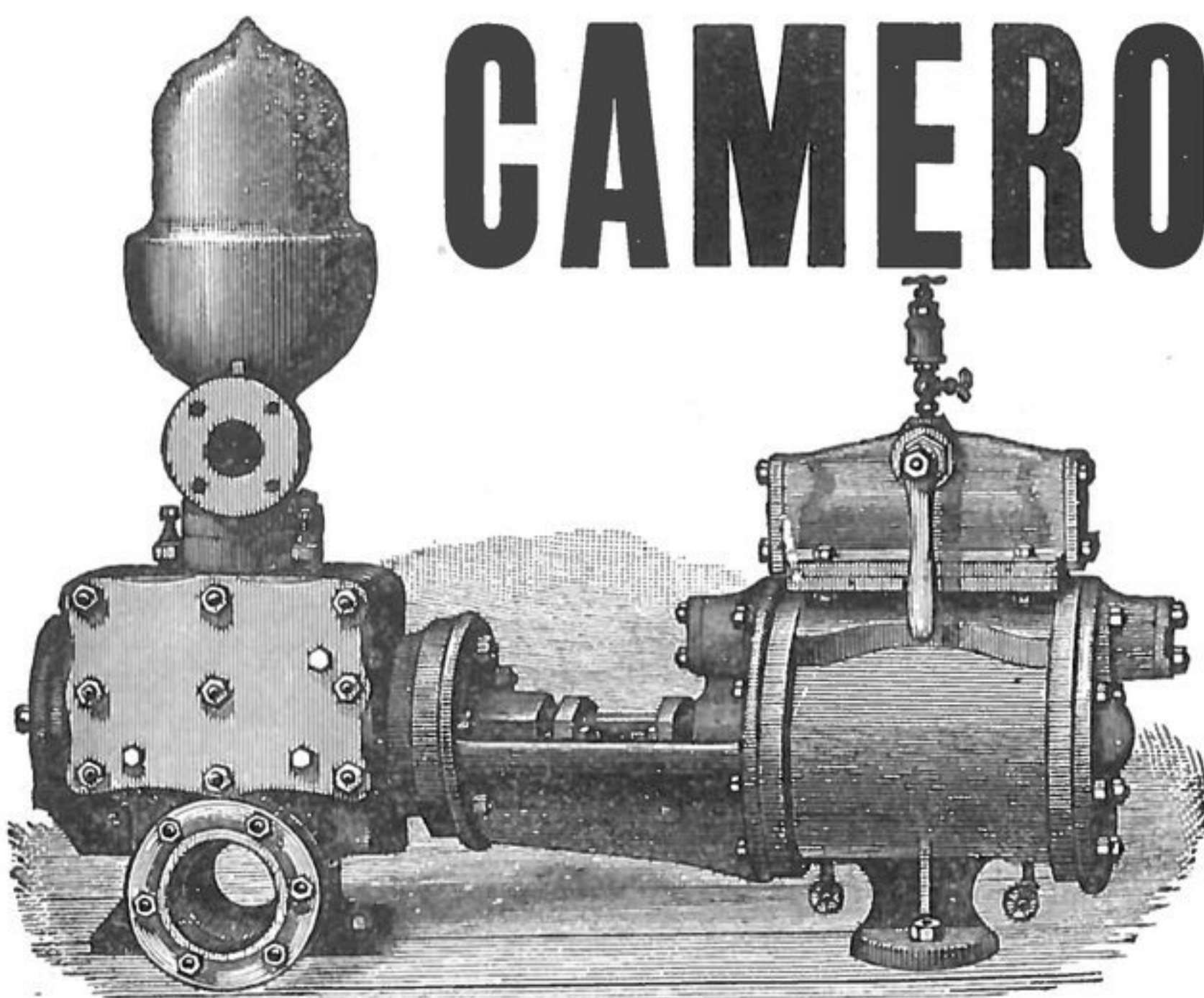
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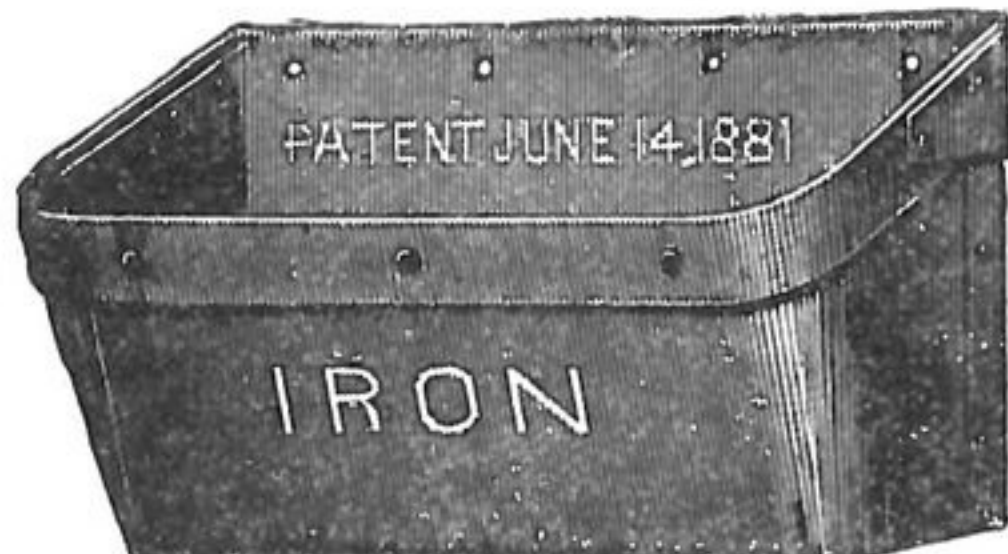
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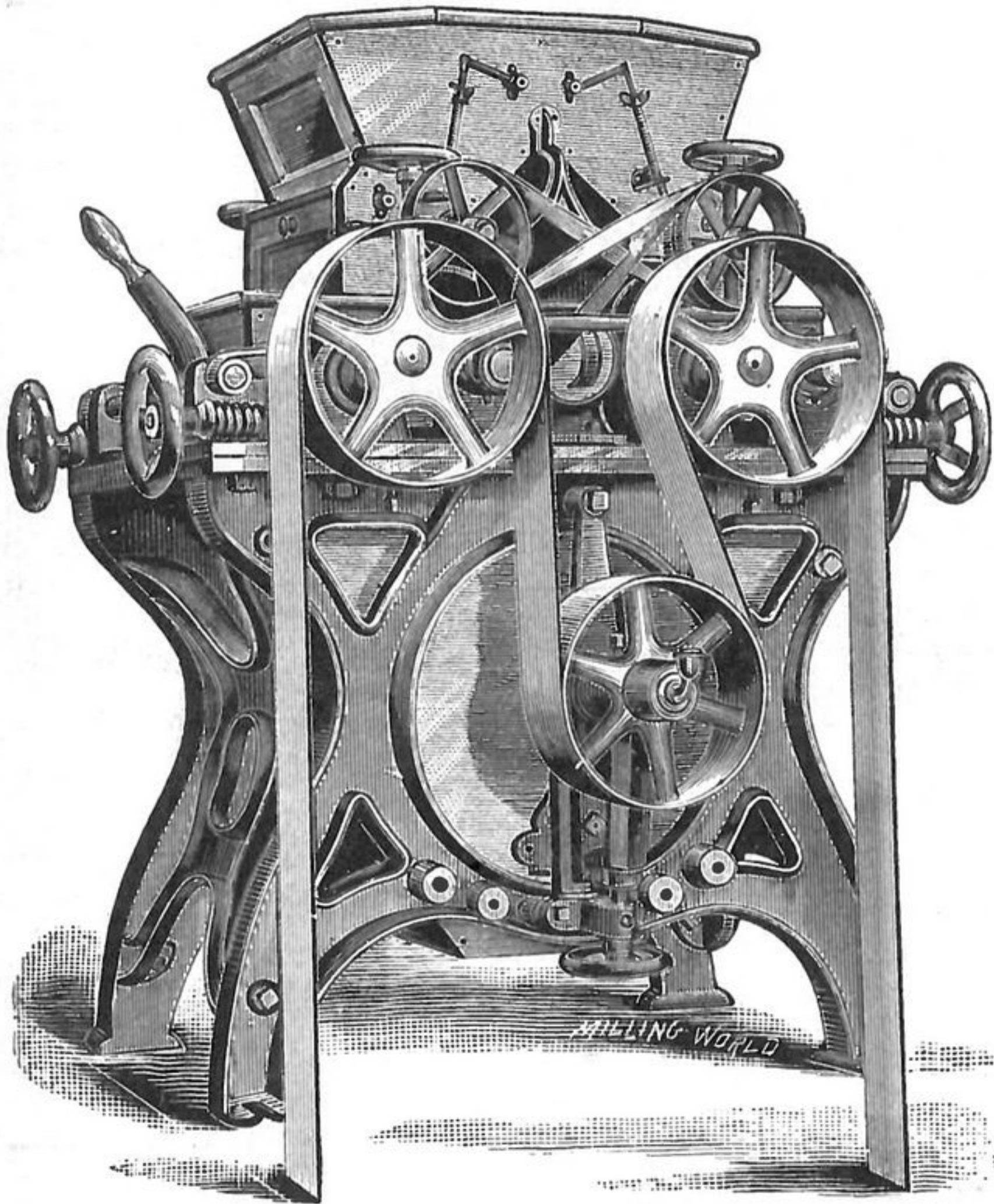
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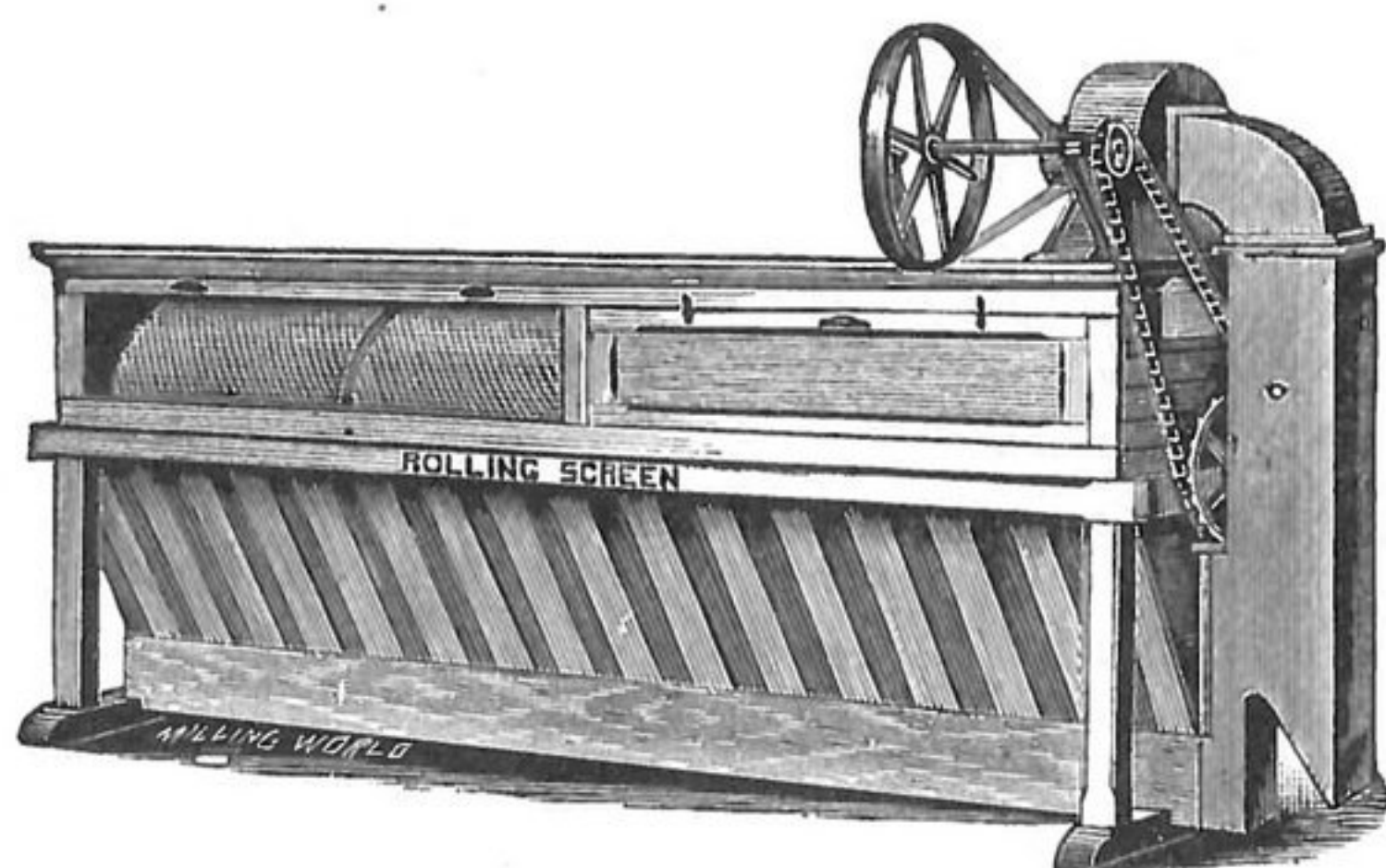
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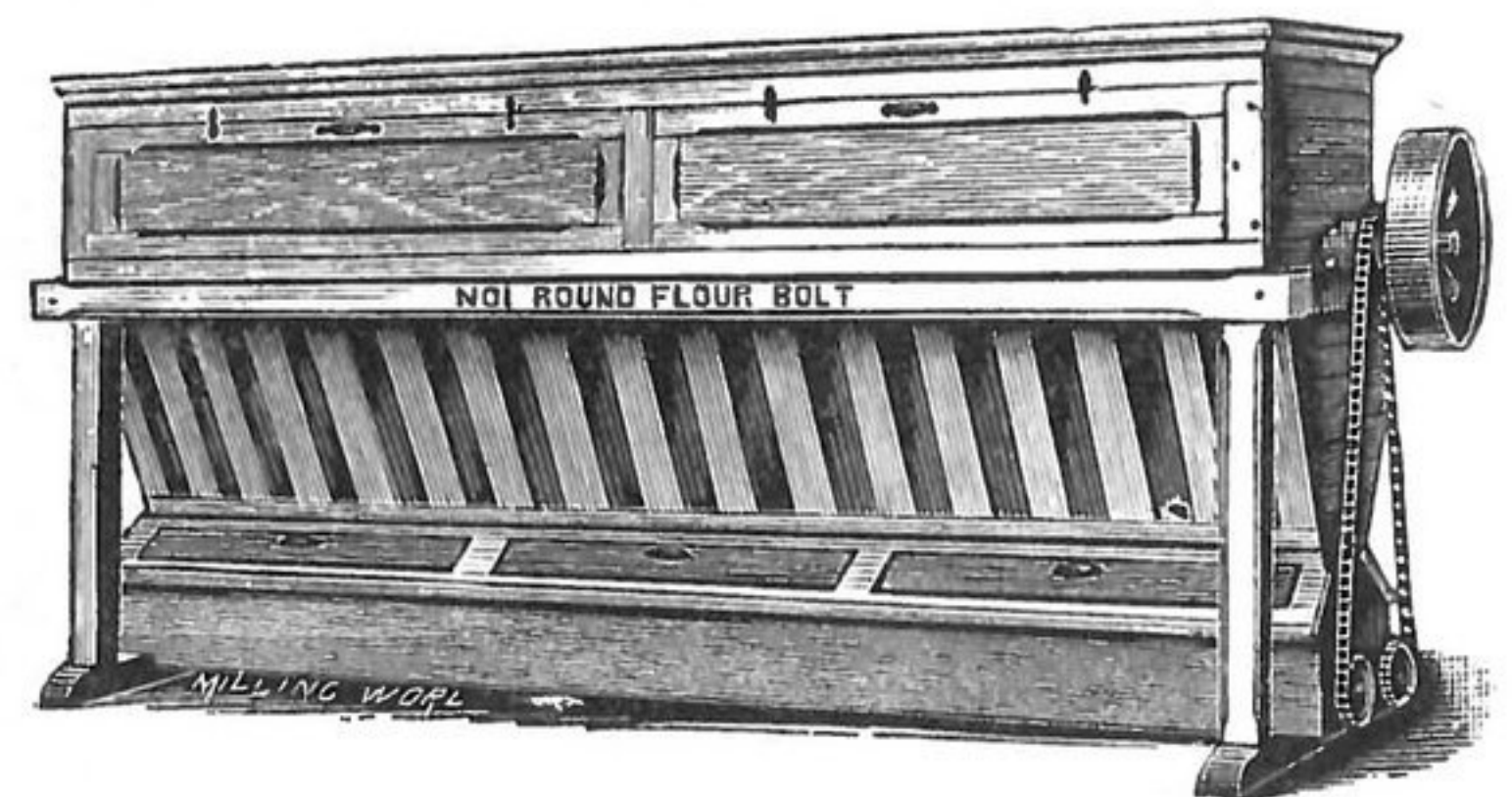
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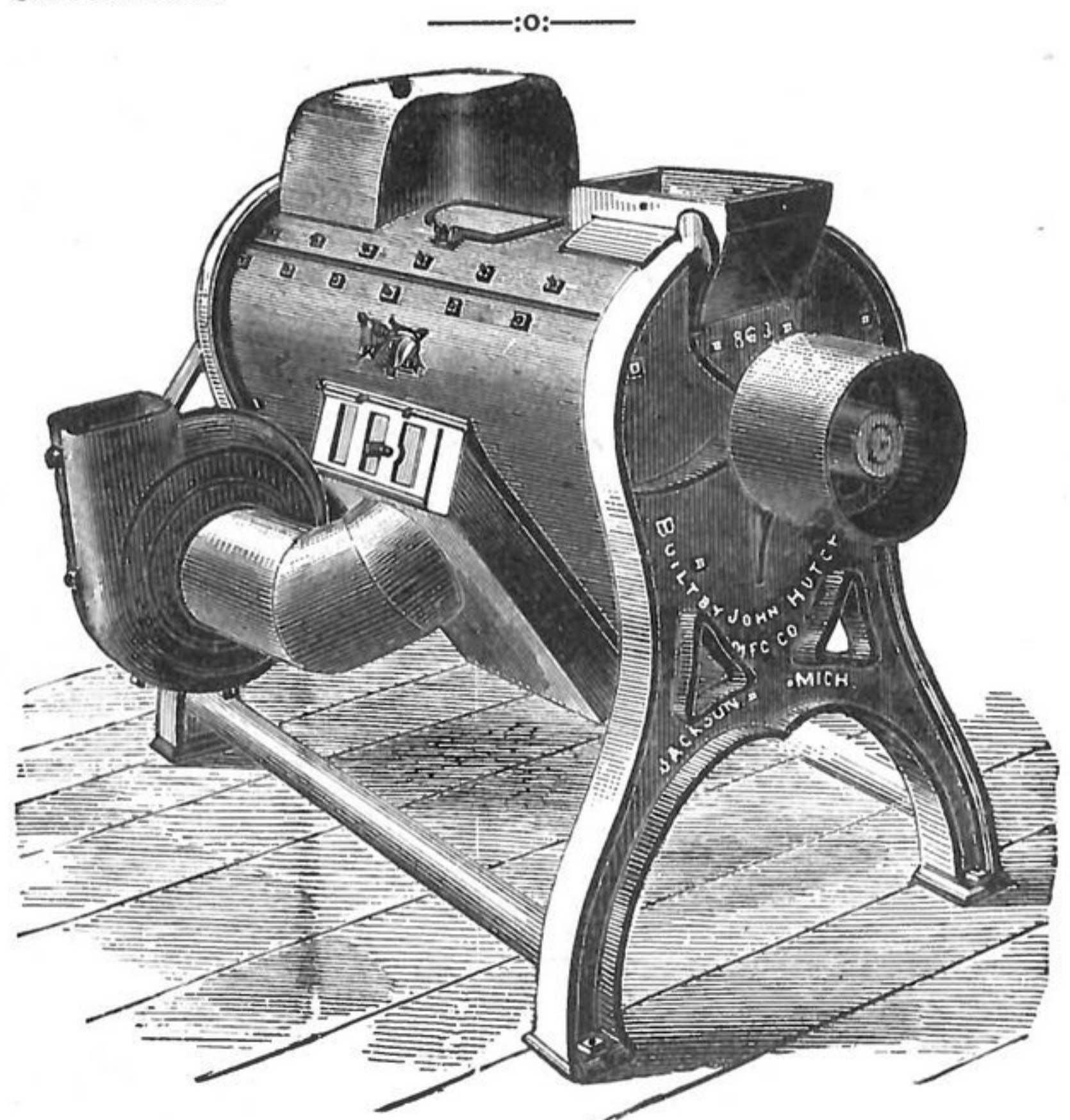


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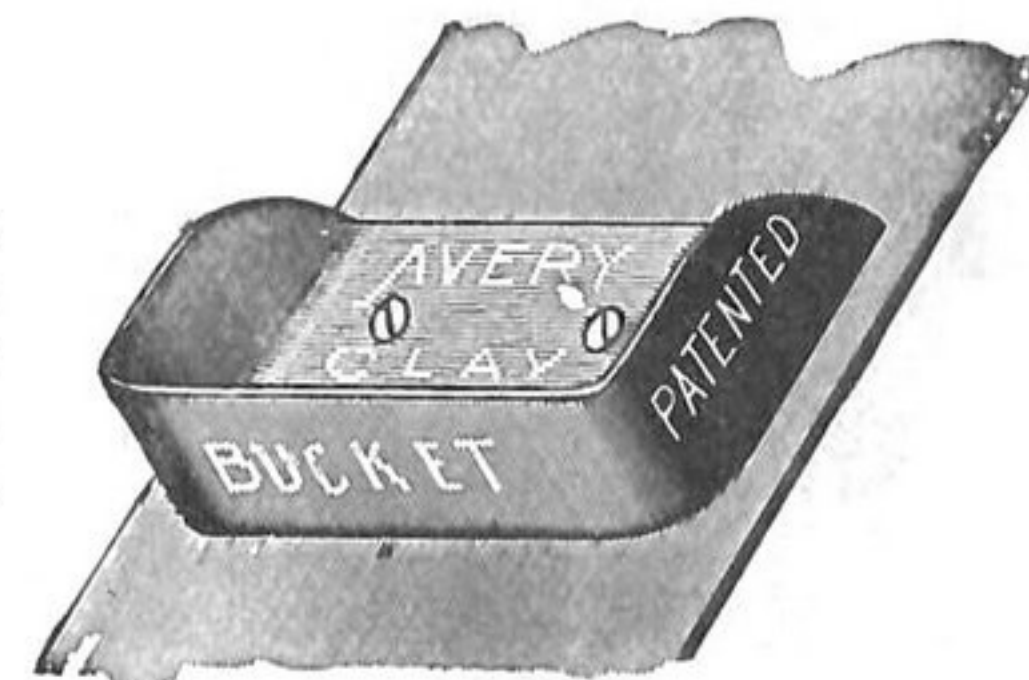


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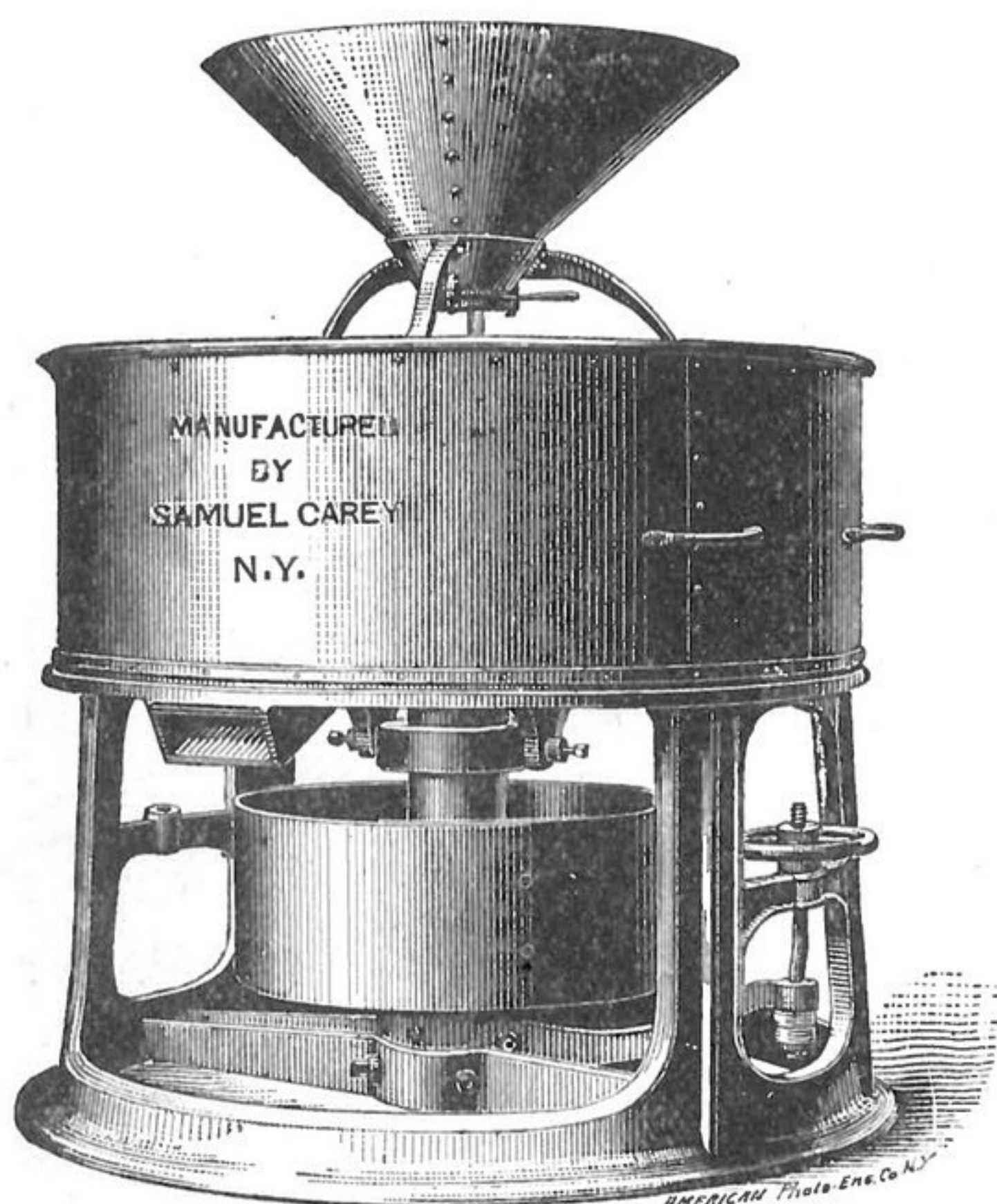
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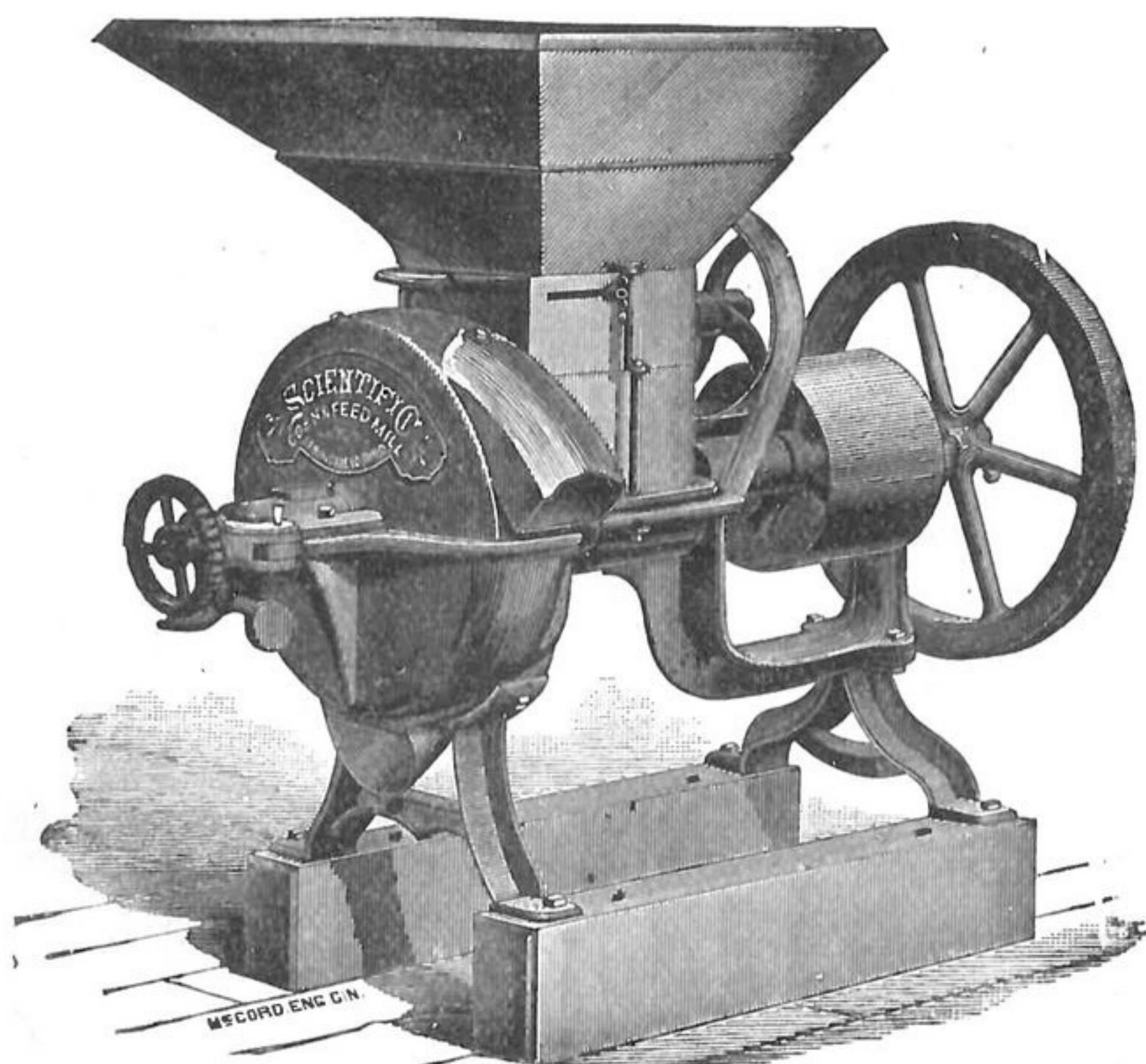
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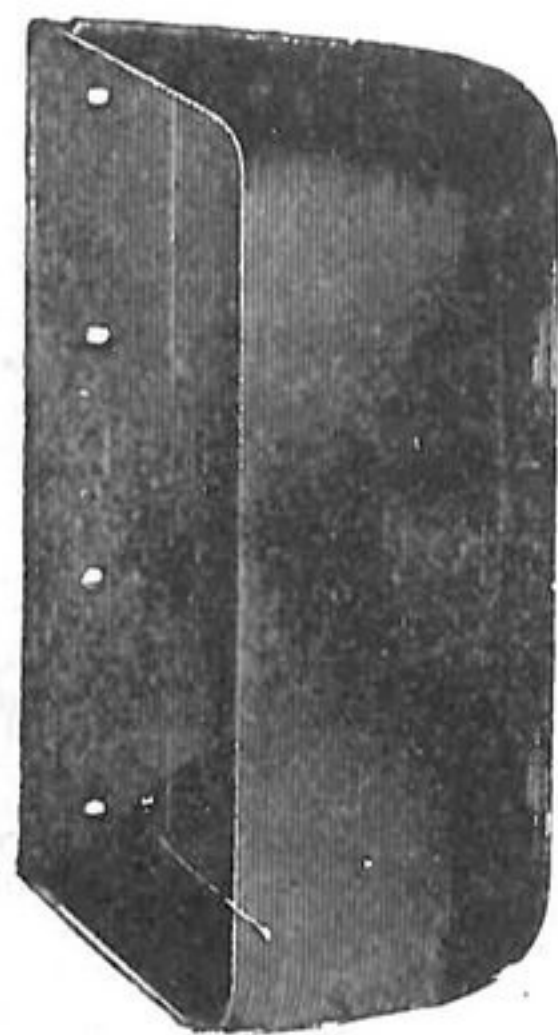
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